Less-toxic pest management

If you have a pest problem, you may be able to solve it yourself with the help of the resources listed at the end of this fact sheet. However, if you want or need to hire a professional pest control service, look for a company that offers less-toxic pest control or Integrated Pest Management (IPM). IPM focuses on long-term prevention of pests and their damage through a combination of techniques such as habitat modification, biological control, and physical control. Pesticides are used only if truly necessary and are selected to be effective against a specific pest while minimizing risks to you, your family and pets, wildlife, beneficial insects, and our environment. IPM is a common sense preventative approach and is less toxic than conventional spraying. IPM methods are based on extensive scientific research.

Studies have demonstrated that using less-toxic pest management or IPM saves money compared to conventional pest control. Because the initial costs are typically higher, companies that haven’t adopted less-toxic approaches may believe they cost more. However, less-toxic pest management pays for itself in the long term because it treats the underlying problem (why you have pests); conventional controls typically treat just the symptoms.

Doing Your Part

For any pest control to work, you must do your part. If the pest control company makes recommendations about cleanup, home repairs, or other steps you should take to help prevent pest problems, make sure you follow their instructions.

Ask Before You Hire

When you first contact a company, tell them that you are concerned about the use of pesticides and would like them to use only less-toxic pest control methods. Some companies may try to convince you that chemical sprays are safe and more effective. Be persistent. Find out to what extent a company you’re considering uses non-chemical approaches to pest control and how it would approach your particular problem. Here’s what to look for:

Approach

- **Ask if they are willing to do pest control without sprays.** Their response will help you determine their philosophical approach to pest control.
- **Discuss various methods and determine if the company provides less-toxic options, such as those discussed below.** A company that offers less-toxic pest control or IPM should use conventional chemicals for only a fraction of their jobs.
- **Inspection — **Ask how the company will find out how the pests are entering, where they are hiding, what’s attracting them, and what they are eating. A less-toxic approach will begin with a thorough inspection to determine why you have a pest problem, as well as the extent of the problem. The key to effective pest control is detailed information about the pest. It is very difficult to control a pest if the company doesn’t know specifically what species it is. The company should also ask you whether anyone living in the house is pregnant, less than one year old, chemically sensitive, asthmatic or elderly, and whether you have pets.
- **Habitat modifications — **Ask what the company will do to prevent a re-infestation of the pest. Since pests need food, water, and shelter to survive, eliminating or reducing one of these via habitat modification (for example, by caulking cracks, screening holes, and replacing door thresholds) will reduce the pest population.
- **Other physical controls — **Physical controls may be used to trap or kill the pest, not just modify its habitat. Physical controls include vacuuming up pests or using traps or barriers.
- **Biological controls — **Some companies will use other organisms, such as beneficial nematodes or lacewings, to control certain pests.
- **Horticultural controls — **Horticultural controls involve how the yard and garden are cared for. For example, plants produce less top
growth if fed a slow-release or organic fertilizer — making them less attractive to certain pests. Good horticultural practices are important, since a healthy lawn and garden will naturally resist or outgrow most pest damage.

**CHEMICAL CONTROLS**

**Less-toxic chemical controls**

- Ask how the company makes decisions about when, where, and what (if any) pesticides to use. A less-toxic pest control service will not spray routinely and, if it sprays at all, will only spray where the pest is a problem. Chemical sprays should not be used to prevent infestations.
- Look for a company that chooses less-toxic chemicals such as borates or boric acid, diatomaceous earth (DE), insecticidal soaps, horticultural oils, and those contained in bait stations. A capable provider of less-toxic pest management or IPM will select the most effective, least toxic chemical to complete the job and will use it only in the areas where the pests are a problem.

**Conventional chemicals**

- Ask for copies of labels and “material safety data sheets” (or “MSDS”) for any pesticide a company plans to use in your home or yard.
- Ask if the company uses chemical pesticides only as a last resort. If the pesticide applicator is going to spray, look for someone who will spray selectively to reach the target pest and won’t spray the whole yard or the entire perimeter of your home.
- Ask to see a copy of the “service ticket” they will use. Check to make sure the following will be on it: target pest, name of any pesticides used and their EPA registration number (for non-food-grade products), how much pesticide was applied and where and when it was applied.
- If the company must use a chemical spray, ask it to post the areas to be treated with warning signs or flags — prior to the treatment and for 72 hours afterwards.
- Monitoring — Discuss the actions the company will take if pests reoccur. Monitoring is important: when less-toxic pest controls are used, insects will die back gradually instead of all at once as they do with conventional pesticides. The company should place monitors around the home and check them regularly to make sure the control is working and to change it if necessary.

**References** — Interview several companies. Ask for and contact references.
- Licensing and training — Make sure the company and on-site technicians are registered and licensed.
- Claims — Be cautious if a company claims it uses “safe pesticides” or “safe chemicals.” Pesticides can be applied safely, but no pesticide (even a less-toxic one) is entirely safe. “Odorless” does not mean safe. Be cautious of claims that a company can control “ALL insects.” If they claim to control all insects, you can be sure they are using a broad-spectrum pesticide that will kill even beneficial insects such as ladybugs, honeybees, and butterflies.
- Contracts — Be cautious of the monthly service contract. A less-toxic approach should ALWAYS include regular monitoring of pest populations but NEVER calendar applications of pesticide — whether or not you have a pest problem. Do not authorize any pest treatment without reading and signing a detailed written contract.
- Records and reporting — Ask the company to provide you with regular reports, including an inspection report with a specific pest identification and monitoring reports.

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**PESTICIDES AND WATER POLLUTION**

Common household pesticides show up in treated wastewater and in local waterways, sometimes at levels that can harm sensitive aquatic life. So, water pollution prevention agencies have teamed up with participating retail stores, pesticide distributors, and manufacturers to reduce the risks associated with pesticide use. This fact sheet is part of a series of fact sheets and store displays aimed at educating residents about less-toxic pest management. For the rest of the series of fact sheets, visit www.ourwaterourworld.org. Also, look for the “Our Water Our World” logo next to products in participating stores and nurseries. See the Pesticides and Water Quality fact sheet for information on active ingredients in common pesticides that may cause water quality problems.

Pest control strategies and methods described in this publication are consistent with integrated pest management (IPM) concepts, and are based on scientific studies and tests in actual home and garden settings. Use suggested products according to label directions and dispose of unwanted or leftover pesticides at a household hazardous waste collection facility or event. For more information on pesticide disposal, call 1-800-CLEANUP or visit: www.1800CLEANUP.org. No endorsement of specific brand name products is intended, nor is criticism implied of similar products that are not mentioned.

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**ACKNOWLEDGMENT**

The Central Contra Costa Sanitary District originally developed this IPM outreach program.

**FOR MORE INFORMATION**

For more information, contact:
Bio-Integral Resource Center (BIRC)  
(510) 524-2567; www.birc.org
University of California Cooperative Extension Master Gardeners in your area  
(in the phone book)
University of California IPM website:  
www.ipm.ucdavis.edu

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