

USE AND DISPOSAL OF PESTICIDES

Even when applied according to label directions, pesticides make their way into our waterways, air, rain and fog. Even small amounts of pesticides can be lethal to marine life, birds, and other life forms. Just one granule or seed treated with diazinon, a common household pesticide, is enough to kill a small bird. **So what can we do?** Instead of relying on conventional pesticides as our first line of defense against a pest, consider them as a last resort. Check out the other fact sheets in this series for tips on safer and effective alternatives for preventing and managing pest problems in your home and garden. For more information, contact the sources listed on the reverse side of this fact sheet.

IF YOU MUST USE PESTICIDES:

- Identify the pest and the afflicted plant, and then choose a product labeled for use on that pest and plant. Not all pesticides are effective against all pests.
- Aerosols may be the worst option you can choose for pest problems. They disperse chemicals in a way that significantly increases the risk of exposure to unintentional targets, including beneficial insects, birds, pets, you and your family.
- Choose the least-toxic product available. Baits and traps are safer options.
- Spot treat whenever possible.
- Buy ready-to-use products instead of concentrates. An undiluted pesticide that requires mixing is more hazardous than one that is already diluted. And, ready-to-use products avoid the use of measuring and mixing that could result in spills. When rinsing a pesticide from measuring cups, applicators or containers, use the rinse as you would the pesticide — for the target pest. Don't wash it down a drain. (See *Proper Disposal* section.)
- Read the label and use only the amount recommended to do the job. More is not better.
- If the label instructs you to use protective gear, heed the advice — your health could depend on it. The use of gloves, for example, is not intended to avoid staining your hands; rather, it offers protection against having the chemicals enter your blood stream through your skin.
- Homeowners who apply pesticides outdoors (including applications on lawns) can unknowingly carry residues into their home on clothing and shoes. Pets can also be carriers. Be mindful that residues, whether tracked in from outdoors or as a result of indoor use, can contaminate carpets and floors where children play.

KNOW WHAT YOU'RE BUYING

- Just because a product is purchased over-the-counter, doesn't mean that it has been tested for its ability to cause long-term health or environmental

SIGNAL WORDS

Caution, Warning, and Danger are signal words placed on product labels to alert consumers to the relative toxicity of the products — *Caution* being the least toxic and *Danger* being the most toxic. These signal words, however, pertain only to the **acute** or **immediate** hazard of the product. Labels do not provide information about the chronic or long-term hazards to humans, animals or the environment. For example, *nothing* on the product label tells you whether a product contains a chemical suspected of causing birth defects, kidney or liver damage, cancer, lung disease, etc.



Choose less toxic products for your home and garden. Look for this symbol before you buy.

INERT INGREDIENTS

Inert ingredients (called “inerts” or “other ingredients” on product labels) can comprise up to 99.9% of a pesticide product. Contrary to what the name implies, inerts are not necessarily safe chemicals — nor have they necessarily been tested for any long-term health implications like cancer, nervous system damage, reproductive harm, or gene mutations. If you want to try to avoid exposure to chemicals suspected of causing long-term health impacts, select pest control products that are non-toxic (e.g., traps), those that offer the least amount of pesticide exposure (e.g., baits), or those that offer the least toxic chemical (e.g., horticultural oil). For more information on choosing the least-toxic pest control product available, refer to the other fact sheets in this series or contact the organizations listed in this fact sheet. For more information on inert ingredients, go to: www.pesticide.org.

damage. In 2001, the U.S. Environmental Protection Agency worked with product manufacturers to remove the pesticide Dursban (or chlorpyrifos) from being sold because of its toxicity to children. Chlorpyrifos was first registered for sale in 1965. Diazinon, a close relative, will be removed from store shelves by 2005 — also because of its toxicity to children. It has been registered for sale since 1956.

- Research has shown that pesticide residues are detected on many foods purchased from grocery stores. For more information about pesticides in food, go to: www.foodnews.org (Environmental Working Group); or call the Natural Resources Defense Council at (415) 777-0220.

- If you have any questions about the safety, environmental impact, or proper use of a pesticide, call the National Pesticide Information Center 24-hour hotline at (800) 858-PEST, www.npic.orst.edu.

STORING PESTICIDES AND APPLICATION EQUIPMENT

- Store pesticides in their original containers, in a place that cannot be accessed by children or pets.
- Never remove the labels.
- Clearly mark containers, applicators and utensils used for mixing or applying pesticides and store them with the pesticides. Never use them for any other purpose.

DISPOSE OF PESTICIDES SAFELY AND LEGALLY

- Unwanted pesticides should be brought to your local household hazardous waste collection program. In California, it's illegal to dispose of partially used containers of pesticides (or any hazardous waste) in the trash, in spite of what the label says. It is legal to dispose of empty (no free-flowing liquid) pesticide containers in the trash if they are 5 gallons or less in capacity.
- *Never* dispose of pesticide-tainted water in any indoor or outdoor drain. Though **indoor** drains flow to treatment plants, pesticides can pass right through the plants and enter local waterways. Water used to rinse out a sprayer or applicator should be applied like the pesticide. In most communities, **outdoor** drains flow directly to local waterways.
- *Never* use or give away any pesticide that is no longer available in the marketplace such as chlordane, DDT, and chlorpyrifos (Dursban).
- For more information on pesticide disposal, call 1-800-CLEANUP or visit: www.1800CLEANUP.org.

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 Pollution 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.

ACKNOWLEDGMENT

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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

