

SAFE USE AND DISPOSAL OF PESTICIDES

Commonly-used pesticides are getting into local creeks, the Bay, and the Delta. Testing has shown that even small amounts of these pesticides may be lethal to creatures that are an important part of the food web. Pesticides reach our waters through both the sewer and storm drain systems due to normal use and improper disposal. Other fact sheets in this series can help you prevent and effectively manage pest problems in your home and garden using the least toxic methods.

SELECT THE PROPER PESTICIDE

- Identify the pest and afflicted plant.
- Make sure the pesticide you choose is labeled for use on that plant and that pest.
- Read the entire label — it's the best source of information about how to use the product.
- If more than one product works, then select the least toxic pesticide. (see Signal Words, at bottom right).
- Buy only the amount you can use in one season.

- Time your treatments to catch pests at their most vulnerable stage.
- Spot treat whenever possible.
- Try to buy pesticides in single-use, or ready-to-use form. Avoid concentrates and the large economy size.

THE LABEL IS THE LAW

- The label on a pesticide container is a legal document that describes exactly how the product is to be used based on extensive testing. Make sure you understand how to mix and apply the pesticide before you begin, then follow all label directions exactly.
- Use the product only as described on the label.

SAFE USE AND STORAGE

- Read the label before using the pesticide and follow the directions. You can cause serious injury to yourself, children, pets and the environment if you misuse pesticides.
- Before using pesticides, remove children, pets, and toys from the area and cover birdbaths, fish ponds and anything else you don't want sprayed or dusted.
- Don't smoke, eat, chew gum or drink when handling pesticides.
- Follow label directions for wearing protective gear when mixing and

applying pesticides. Depending on the product, this might include: plastic or rubber **gloves**, **safety glasses or goggles**, a **respirator** rated for pesticides, **long-sleeved shirt**, **long pants or coveralls**, and **closed shoes** (no sandals or bare feet).

- If you buy concentrates and dilute them for use, mix up the smallest quantity that will do the job, and use it up.
- When mixing or measuring pesticides, use a dedicated set of spoons and cups. Mark the utensils with something permanent, such as fingernail polish, and store them with the pesticides so they won't ever be used in the kitchen.
- Store pesticides in their original containers, out of the reach of children

SIGNAL WORDS

Caution, **Warning**, **Danger** and **Poison** are "signal words" that indicate the product's level of acute toxicity to humans. *Caution* means slightly toxic, *Warning* means moderately toxic, *Danger* means highly toxic, and *Poison* indicates the greatest danger. In addition to the acute (immediate) risks, pesticides may also have chronic (long-term) risks to humans, animals, and the environment.



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

and pets, in a cool, dark, dry place outside the house. A locking cupboard in the garage or storage shed is ideal.

- Never remove labels or transfer pesticides to other containers.
- Water used to rinse out a sprayer or applicator should be applied like the pesticide.
- After applying pesticides, take a shower and put on clean clothes.
- Teach children that **pesticides are poisons** that shouldn't be touched or consumed.

PROPER DISPOSAL

If you find yourself with unwanted pesticides, give them to someone who can use them, or take them to a household hazardous waste collection facility or event like the ones listed below and **REMEMBER:**

- Don't pour leftover pesticides or water from rinsing equipment on the ground or in any type of drain inside or outside the house.
- Don't put pesticides in the trash.
- *Never* use or give away any pesticide that has been banned such as chlordane or DDT.

READING A PESTICIDE LABEL

PRECAUTIONARY STATEMENTS:

Known hazards to humans, domestic animals and the environment

NOTE TO PHYSICIANS:

Actions a doctor should take if the product is ingested, inhaled, or comes into contact with skin or eyes

FIRST AID INSTRUCTIONS:

Immediate action required if the product is ingested, inhaled, or comes into contact with skin or eyes

DIRECTIONS FOR USE:

How much product to use; how to mix and apply the product

CONTROLS:

Pests that the product is formulated to control

PLANTS:

Plants that can safely be treated with the product; if the product can be used on food plants, the label also tells you how many days before harvest you can apply the product

STORAGE AND DISPOSAL:

How to safely store the product. Unwanted pesticides should be taken to a household hazardous waste facility or collection event

BRAND X PESTICIDE

ACTIVE INGREDIENTS:

The common name of the pesticide, and the chemical name if it has one; look here first to find out exactly what is in the product before buying it

SIGNAL WORD:

Caution, Warning, Danger, or Poison – signals the toxicity-level category of the product

PRODUCT CODE IDENTIFICATION:

The product code used by the manufacturer and the EPA; use this number when contacting the manufacturer or EPA about the product

PESTICIDES AND WATER POLLUTION

Water pollution prevention agencies have teamed up with Bay Area nurseries and hardware stores to reduce the risks associated with pesticide use. Common household pesticides show up in treated wastewater and in Bay Area creeks, sometimes at levels that can harm sensitive aquatic life. This fact sheet is part of a series of information pieces and store displays aimed at educating Bay Area residents about less-toxic pest management. Look for the "Our Water Our World" logo next to products in participating hardware stores and nurseries throughout the Bay Area.

Pest control strategies and methods described in these publications 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. No endorsement of specific brand name products is intended, nor is criticism implied of similar products that are not mentioned.

FOR MORE INFORMATION

If you need additional information, contact:

Bio-Integral Resource Center (BIRC)
(510) 524-2567

University of California Cooperative Extension Master Gardeners in your area (in the phone book)

Central Contra Costa Sanitary District website: www.centralsan.org

University of California IPM website: www.ipm.ucdavis.edu

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FOR DISPOSAL OF HOUSEHOLD HAZARDOUS WASTE

If your community is not covered by any of the facilities or programs listed below, call your county environmental health department for information about the disposal of pesticides.

Alameda County	Household Hazardous Waste Program	510-670-6460
Contra Costa County		
Central County	Central Contra Costa Sanitary District	800-646-1431
East and West County	Contra Costa HHW Hotline	800-750-4096
Marin County		
Novato residents	Household Hazardous Waste Hotline	415-892-7344
Other areas	Marin HHW Facility	415-485-6806
San Francisco	HHW Collection Facility	415-695-7375
San Mateo County	San Mateo Countywide HHW Hotline	650-363-4718
Santa Clara County		
Palo Alto	Monthly HHW Collection	650-496-6980
Solano County		
Vacaville	HHW Programs	707-454-5705
Fairfield, Suisun	HHW Collection Facility	707-437-1111
Sonoma County	Eco-Desk Hotline	707-527-DESK

If you have any questions about the safety, environmental impact, or proper use of a pesticide, call the National Pesticide Telecommunications Network 24-hour hotline at 800-858-PEST.



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.

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.

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 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 stores shelves by 2004 — also because of its toxicity to children. It has been registered for sale since 1956.
- 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
- 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 Telecommunications Network 24-hour hotline at (800) 858-PEST.

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

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FOR MORE INFORMATION

Using Less Toxic Alternatives to Prevent Pest Damage
Call 1-888-BAYWISE or visit these websites:

Bio-Integral Resource Center
www.birc.org

Central Contra Costa Sanitary District
www.centraalsan.org

Northwest Coalition for Alternatives to Pesticides
www.pesticide.org

Pesticide Action Network
www.panna.org
www.pesticideinfo.org

Rachel Carson Council
<http://members.aol.com/rccouncil/ourpage/index.htm>

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