

MU Guide

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Buying Home and Garden Chemicals

Denny Schrock and Ray R. Rothenberger
Department of Horticulture

Every year homeowners are confronted with pest problems — weeds, fleas on dogs or cats, deer browsing on trees and shrubs, insects and diseases infesting lawns and gardens. The first step in managing any of these problems is to identify the pest. Then you will be able to choose an appropriate method of control — mechanical, biological, chemical, or some combination.

Proper identification and control are important steps to determine if you need to purchase a pesticide. Local University Extension center staff and lawn and garden professionals can help you identify pest problems, or you can consult various manuals published by businesses and universities.

Guidelines to buying pesticides

If you choose to buy a pesticide, the next step is to read pesticide labels. Each label contains vital information that you should read before choosing a product. The information is for your protection and the protection of the environment. Make sure the pest you want to control is listed in the “Directions for Use” section of the label. This section is important, since it explains how to properly apply the product so nontarget organisms are not killed, desirable plants are not harmed, and water sources are not contaminated.

Be certain you understand the directions for mixing and applying the pesticide. Also, know what precautions to take. Read the label’s “Precautionary Statements.” Sometimes this information will change your mind about buying a particular pesticide product. For instance, the material may present hazards to your property or family that are too risky for you to manage, or the pesticide may be too toxic for you to handle comfortably.

The signal words CAUTION, WARNING or DANGER refer to the product’s level of toxicity and its potential danger if it is misused. Of the three, CAUTION indicates the lowest risk level (lowest toxicity) when the product is used as directed on the label. WARNING indicates a higher toxicity, and pesticides labeled with the word DANGER are the most

Pesticide buying tips

- Properly identify the pest.
- Carefully read the entire label before you buy. Make sure it is the product you want and that you are not uncomfortable with the ingredients or the instructions.
- Buy the least toxic material that will control the pest.
- Buy no more of a pesticide than you need.
- Read and follow the label each time you apply.
- Know the active ingredients.
- Have a first aid plan.
- Store all pesticides properly.

toxic. Always buy the least toxic material that will do the job. See Table 1 for further information.

If you purchase a pesticide, you should be prepared to buy the safety equipment required to handle and apply the product. If you think you cannot adequately comply with the safety and first aid requirements stated on the label, you should choose another pesticide or a different control method.

The last section of the label to read before you buy a particular pesticide is the section called “Storage and Disposal.” Some questions to consider when you have to store a pesticide include: When will I need it again? Can I use it to control other pests? Will the material remain active and still control target pests? How long will the container survive prolonged storage? For example, the bag storing wettable powders may deteriorate before you can use all of the pesticide, metal cans may corrode, and glass containers may break.

Other potential problems associated with pesticide storage may include odors and potential fire hazard. Because of these potential hazards, all pesticides should be stored in their original containers, under lock and key in a secure place such as a cabinet or chest. By purchasing the smallest amount of the product necessary to do the job, you can reduce the risks associated with storing any pesticide.

Table 1. What signal words mean.

Signal words on pesticide labels tell the consumer the pesticide's level of toxicity when swallowed, inhaled, absorbed through the skin, or encountered through other physical contact.
Signal words are required on pesticide labels. All labels also must state: "Keep Out of Reach of Children."

Signal word	Level of toxicity	Approximate fatal dosage if swallowed	Possible skin effects	Possible eye effects
DANGER POISON	Highly toxic	A few drops to 1 teaspoon	Severe irritation or damage at 72 hours	Irreversible blindness at 7 days
WARNING	Moderately toxic	1 teaspoon to 1 ounce	Moderate irritation at 72 hours	Blindness reversible within 7 days, or irritation persisting for 7 days
CAUTION	Slightly toxic	More than 1 ounce	Mild or slight irritation at 72 hours	No blindness, irritation reversible within 7 days
CAUTION	Not toxic		No irritation at 72 hours	No irritation

Responding to accidents

Always be prepared for the possibility of accidents. An important section on the label lists the type and amount of active ingredients in the product. You need to know this for mixing the product, and you also need to know the active ingredients if there is an accident. In emergencies you need to be able to tell a doctor the name or names of the active ingredients so that proper treatment can be administered.

First aid instructions also are printed on the label in the section "Statement of Practical Treatment." These are immediate actions you must take in an emergency.

Clean up spills right away. Materials such as cat litter granules, rags or newspapers can be used to soak up a spill. All contaminated materials should be sealed into a plastic bag. Contact your local solid waste official to determine proper disposal in your area.

If you store fairly large amounts of pesticides (more than 1 gallon of liquids, 2 pounds of dusts, or 50 pounds of granules), your storage area should have a nonporous floor such as concrete, without a drain, so that spills can easily be cleaned up. It is essential not to contaminate local water supplies and

drainage areas with pesticides. Never flush pesticides down the drain.

For further information on pesticide use and safety, contact your local University Extension center for any or all of the following MU publications:

- G 1272 *Sprayer Calibration: Spray Mix Calculations*
- G 1908 *Fires in Agricultural Chemicals*
- G 1915 *First Aid for Pesticide Poisoning*
- G 1917 *Personal Protective Equipment for Working with Pesticides*
- G 1918 *Homeowner Chemical Safety*
- G 6951 *Understanding and Using Garden and Home Grounds Herbicides*
- G 7510 *Pesticide Dilution Table*
- G 7520 *Pesticides and the Environment*
- GH 140 *Laundrying Pesticide Contaminated Clothing*
- WM 6000 *Safe Use, Storage and Disposal of Pesticides*
- WQ 551 *Calibrating Home Garden Equipment*

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