

# Home and Garden Pesticide Guidelines

## Choose pesticides wisely

Pesticides can be valuable garden and home pest control tools but they must be selected and applied with personal and environmental safety in mind. As with other tools, it is important to use the right pesticide for the job.

Pesticide is a broad term for the wide variety of substances used to kill, control, or repel pests.

Pesticides include insecticides for control of insects; herbicides (weeds); fungicides (pathogens that cause plant diseases); rodenticides (mice and rats); and molluscicides (slugs and snails).



Photo by Mark Shour



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## Is a pesticide really needed?

- Is a pest the cause of the damage?
- What kind of pest is it: Insect? Weed? Plant disease? Rodent? Slug?
- Are there effective non-chemical ways to control the pest (e.g., hand removal or protecting with screening)?
- Is the damage severe enough to warrant the time, expense, and cost of chemical control?
- Will the pesticide control the pest at the current stage of its life cycle? Or should the application be delayed to a more effective time?
- Is pesticide use cost-effective? Or would the chemical treatment and equipment purchase cost more than the plant is worth?

The presence of insects does not mean that insects are a problem. The same holds true for other types of pests. Identify the real problem before selecting any type of control. Resources available to help identify pests or pest-caused problems include garden center and pest control company personnel and Iowa State University Extension and Outreach county offices.

## Which pesticide is best?

If it is determined that a pesticide is needed, read the pesticide labels carefully. Choose a product that is specifically labeled for use on the plants or in the location that needs to be protected, and that will be effective against the pest needed to be controlled.

Do not use lawn or garden pesticides indoors. All pesticides labeled for indoor use are ready-to-use as purchased and are applied as they come from the manufacturer with no further mixing or dilution.

Never use a pesticide on a food-bearing plant unless the label directs such use. Do not contaminate feed, food, or food preparation surfaces.

## Consider the site

Read the label of each product under consideration to be sure it can be used in the place and manner intended. For example, if the label indicates that the material is toxic to fish, do not use it on plants along the border of a water feature. Consider all uses of the site to which the pesticide will be applied. Protect children, pests, and wildlife by careful pesticide selection and use.

## Consider equipment needs

What application equipment and personal protective equipment does the label require? If the proper equipment is not already available, are you willing to purchase, use, and maintain it? Does the pesticide used need to be mixed with water in a sprayer, or will a pre-mixed, "ready-to-use" product in a spray bottle be more appropriate?

## Buy only what is needed

Because most pesticides have a limited shelf life, it is best to purchase only the amount of pesticide that will be needed for the immediate pest situation. Storing leftover pesticides can present a danger to you or your family.

## Choose the least toxic product

The signal word on a label indicates the relative toxicity of the product. Products marked CAUTION are less toxic than those marked WARNING, and should be considered first. Avoid pesticides that are marked with DANGER or DANGER POISON.



Photo by Mark Shour

## Apply pesticides safely

Before applying pesticides, read and understand the proper application instructions and safety measures printed on the pesticide label.

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- **Use the right equipment.** Do not use the same sprayer for both weed and insect control.
- **Mix according to directions.** Use the recommended amounts of water and pesticide by measuring carefully and mixing thoroughly.
- **Apply according to label directions.** When applying outdoors, evenly apply the specified amount of spray solution per unit area. Indoor baits, sprays, and dusts should be applied sparingly to inaccessible cracks and crevices or in other ways as specified on the label.
- **Maintain equipment.** Check for leaking hoses or connections and plugged, worn, or dripping nozzles. Clean, repair, or replace parts as needed.
- **Mix garden pesticides outdoors** where there is good light and ventilation.
- **Never eat, drink, or smoke** while mixing or applying pesticides or during equipment clean up.
- **Clear all people and animals,** toys and obstructions from the area before application. Keep children and pets out of treated areas until the spray has dried.
- **If a pesticide splashes or spills,** stop immediately – contain the spill, remove contaminated clothing and wash thoroughly, then clean up the spill.
- **Apply outdoor pesticides on calm** days and at low pressures to minimize drift.
- **Avoid spraying outdoor pesticides** when the temperature is forecast to reach 85°F or higher.
- **Remove and wash clothes and gloves** after applying pesticides. Thoroughly wash hands, face, and body.
- **Do not store leftover diluted pesticides.** If there is a small amount of diluted pesticide in the tank after spraying, return to target area and evenly spray out this material.
- **Clean up.** Thoroughly clean all spray equipment immediately after use with clean water.
- **Never rinse** pesticides down the drain or a storm sewer opening.



## Store pesticides safely

Proper storage of pesticides is important to protect human health, preserve the environment, and maintain chemical effectiveness. Read the storage section of the product label before purchasing, and do not buy a product that cannot be stored as directed.

- Store pesticides in a secure, locked place.
- Store pesticides in their original containers with the labels intact.
- Do not store pesticides with or near food, medicine, cleaning supplies, seed, or animal feed.
- Do not store pesticides near flammable materials.
- Place opened containers in clear plastic bags to help contain leaks and avoid accidental spills.
- Mark all containers with the date of purchase.
- Never transfer excess pesticide or fertilizer to an empty food container to prevent accidental poisoning.



## Dispose of pesticides safely

- Rinse empty liquid containers three times and pour the rinse water into the spray tank.
- Wrap empty containers in newspaper and place in a plastic garbage bag destined for a sanitary landfill.
- Never use empty pesticide containers for any other use.
- Never allow children to play with empty pesticide containers.
- Leftover, unused, or unwanted pesticide products must be disposed of at a [Regional Collection Center](#). For more information: <http://www.iowadnr.gov/Environmental-Protection/Household-Hazardous-Materials/Regional-Collection-Centers>.

## The label is the law

Understand the pesticide label that you are reading. Ask questions if the label isn't clear to you. As a buyer, you assume responsibility for the consequences if the product is used in any manner different from the label directions. It is illegal to use a pesticide on a crop or site or in a higher concentration than is specified on the label.

For more information on pesticides, contact an [ISU Extension and Outreach county office](#) ([www.extension.iastate.edu/countyservices](http://www.extension.iastate.edu/countyservices)).

Written by Mark Shour, entomology program specialist with ISU Extension and Outreach, and Donald Lewis, professor and extension entomologist with Iowa State University.