



Safe Use of Pesticides in the Home and Garden

Jim T. Criswell
Extension Pesticide Coordinator

Pat Bolin
Extension IPM Coordinator

Kevin Shelton
Extension Coordinator

Charles Luper
Extension Associate

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<http://osufacts.okstate.edu>

Housekeepers and home gardeners frequently face the problem of controlling insects, weeds, plant diseases, and other pests that contaminate food, destroy property, injure garden produce or cause personal annoyance. Some of these pests, at times, cannot be controlled without using pesticides.

Proper use of pesticides has proved beneficial to our society. World food production and control of infectious diseases are dependent on pesticides. It is, however, necessary to recognize the dangers of pesticides to humans, pets, and the environment.

What Are Pesticides?

Pesticides are chemicals of plant, animal or synthetic origin manufactured to kill or repel pests—insects, weeds, plant disease organisms, rodents, and other kinds of animal and plant life—that threaten man’s health, food, or comfort. Disinfectants are also considered pesticides. Pesticides are divided into several groups based on the organisms they are designed to control. These groups are:

Insecticides - Chemicals used to protect man, animals, and plants from insect annoyances, damage, and destruction.

Fungicides - Chemicals used to protect man, animals, and plants from fungal organisms that cause diseases.

Herbicides - Chemicals used to control unwanted vegetation, either selectively or generally.

Rodenticides - Chemicals to control rats, mice, and other rodent pests.

Miticides or Acaracides - Chemicals used to control mites and ticks.

Dangers of Pesticides

All pesticides are poisons. They are designed to kill or repel pests but may be harmful and/or fatal to other organisms, including humans. If not handled and applied properly, many pesticides used in the home or



garden can injure people and animals. Most pesticide poisoning, whether to adults, children, or pests, is caused by careless use, improper storage, or ignorance by the user.

Minute amounts of pesticide remaining on fruits and vegetables are called residue. The Environmental Protection Agency allows a certain amount of residue on fruits and vegetables. When excessive amounts of pesticide are used, these residue levels may be harmful. Therefore, it is very important for homeowners to follow pesticide label directions to avoid potential harmful amounts of residue.

Environmental contamination is a threat from misuse of pesticides. Improper use or careless disposal of pesticides can result in soil and water contamination. Most pesticides today decompose or break down rapidly. There is relatively little bioaccumulation from today’s pesticides compared with pesticides used in the 1970s.

Proper and safe use of pesticides go far to eliminate environmental problems. When properly used, pesticides should give satisfactory pest control in the home and garden without endangering anyone or the

environment. To minimize the dangers of pesticides, use appropriate pesticides only when necessary and with the utmost caution and respect.

Selection of Pesticides

There are now hundreds of different pesticide products to choose from when attempting to control insects, mites, rodents, weeds, nematodes, and plant diseases. Many of these different types of pesticides are available in various forms, such as liquid concentrates, dusts, wettable powders, granules, and baits. Each one is designed for a specific need and use.

Pesticides range in hazard from those that are relative nontoxic to those that are highly toxic. (See Extension Fact Sheet EPP-7457, "Toxicity of Pesticides"). You can quickly determine a pesticide's level of toxicity by looking at the product label for certain signal words. The signal word is set by law. The table below gives examples of signal words:

Signal word	Toxicity	Approximate amount needed to kill the average person
DANGER	Highly toxic	A taste to a teaspoon
WARNING	Moderately toxic	A teaspoon to a tablespoon
CAUTION	Low toxicity or comparatively free from danger	An ounce to more than a pint

All pesticides are required to bear the statement KEEP OUT OF REACH OF CHILDREN. This means to store the pesticide where children cannot get to it, and to keep the product away from children while it is in use.

Select safer pesticides for use in or around the home and garden. Try to select products with the signal word CAUTION on the label. Products with the signal word DANGER should be applied only by professional or commercial applicators. Homeowners should never use a pesticide with the signal word "Danger" or "Danger Poison."

Who's Responsible for Safe Use?

In every case of human death from pesticides, the cause has been accidental misuse. Children lead the list of victims of pesticide poisoning. The reason is that people fail to take the most elementary precautions with pesticides around the home. Whenever a small child is poisoned accidentally, an older person has done something wrong. The pesticide user is responsible for seeing that family, pets, and wildlife are not exposed.

WE ARE RESPONSIBLE FOR SAFE USE. To avoid accidents and misuse, follow these simple rules:

Pest Identification

Identify your pest problem before attempting to manage it. Observe the pest. It may not be causing any damage; it could even be beneficial. If you cannot identify it, find someone who can. Your local Extension office can assist you in identification of the pest and selection of management measures. Once the pest has been identified, you are ready to select a pesticide product, if needed, for its management.

Label

- **READ THE LABEL.** This is the first rule of safety in using any pesticide. Read the label of the pesticide product and follow the directions and precautions printed on it every time you use it. Make sure the intended crop, animal or place of use is listed on the label.
- **READ THE LABEL BEFORE** spraying or dusting vegetables or fruits to determine how long you must wait before you can harvest.
- Observe the cautions, especially those that read "Keep out of reach of children," and those for environmental protection.

Use

- Pesticides are only one option in pest control strategies. When using a pesticide make sure it is the best management option.
- When using a pesticide be sure to select the best pesticide for proper use at the proper time and under the proper conditions to manage a pest.
- Use the exact amount specified by the label. Too much is illegal, a waste, and an environmental hazard wastes money, and it could stain surfaces and fabrics or injure plants or pets. Overdosage does not generally lead to better control, and too little may not work, causing you to repeat the application.
- Mix or prepare dusts or sprays outdoors or in a well-ventilated area. When opening a pesticide container, keep your face away from, and to one side of, the cap or lid.
- Do not mix different pesticides unless allowed by label direction. Use special containers for mixing pesticides. **Never use food or beverage containers.**
- Keep children and pets away when mixing or applying pesticides.
- Remove aquariums, birds, cats, dogs, and other pets as well as their food and water bowls before spraying and dusting. Do not contaminate water gardens or streams.
- All insecticide and many other pesticide labels do not allow applications when bees are present. Follow pesticide label directions and take care not to

spray or kill bees. The same care should be taken to protect beneficial insects and fungi.

- When applying pesticides (including foggers) in the home, cover food and utensils. Check the pesticide label for protection of pets including birds, fish, amphibians, and reptiles.
- Keep pets, children, and other persons out of treated gardens, off treated lawns, and out of treated rooms until sprays have dried or dusts have settled or longer if the product label tells you to. If treating pets or their quarters, use pesticides that are labeled for that purpose.
- **Never** leave pesticides where children and irresponsible persons can reach them. Place them out of reach as soon as the sprays and dusts have been prepared.
- Always keep pesticides in their original containers. Make sure they are tightly closed and plainly labeled. Never put a pesticide in an empty food or drink container of any kind. This has been a major cause of deaths from pesticides.
- Do not apply dust or spray on a windy day. When there is a breeze, apply the dust or spray from the windward side of the area being treated, so the breeze will blow the pesticide away from you.
- Always use an air gap when filling any type of sprayer.
- Do not allow pesticides to drift onto adjoining property.
- Do not apply pesticides near wells, cisterns, or any other water sources (such as storm drains or streets) into which they may run or be washed by rain. Do not clean application equipment, empty unwanted pesticide, or dispose of empty containers near these places. **Never** pour pesticides or rinse sprayers down bathtub or sink drains. Disconnect hose-in sprayers immediately after turning off the water to prevent possible water contamination.

Cleanliness

- Wear protective clothing as specified in the label directions when mixing or applying pesticides to guard against splashes, spills, and skin contact. The minimum of protective clothing should be shoes, socks, trousers, and long-sleeve shirt. Use unlined rubber gloves when mixing or handling concentrates. Rinse them well with water before removing.
- Never smoke, eat, or drink while handling a pesticide. After finishing the work, wash exposed skin surfaces with soap and water.
- If you spill pesticide spray mix on your clothing, remove it immediately and wash the exposed skin with soap and water. Launder the clothing separately from the family laundry before wearing it again. If you spill pesticide from the container on your clothing, immediately remove your clothing and bathe with soap. Dispose of the clothing.

- Avoid inhaling sprays, dusts, or vapors. If you do, move away from the application area and get fresh air.
- If pesticide gets into your eyes, follow emergency directions on the label, flush the eyes with water for 10 to 15 minutes and get medical attention.
- If you accidentally swallow some pesticide or become ill during or shortly after pesticide use, call a physician or get to the hospital immediately. Take the pesticide label with you.

Storage

- Store pesticides and pesticide equipment in a locked cabinet or room. A cool, dry, well ventilated area is best.
- Never store pesticides with or near food, animal feed, medicines, or cleaning supplies.
- Store pesticides in their original containers.

Disposal

- To minimize disposal problems, purchase only what you will need or a little less for one season. Some pesticides lose their effectiveness from one season to the next. Some labels will advise you of this.
- Do not dispose of empty containers or surplus pesticides where they may be a hazard to fish or wildlife or contaminate water.
- Do not save or reuse empty pesticide containers. Triple-rinse empty pesticide containers immediately after they are emptied. Pour the rinse water into the sprayer for use on the target site. Place the empty containers in the sanitary trash collection. If your community has a hazardous waste collection program, dispose of unwanted pesticides and empty containers at these scheduled events. If your community does not have such a program, you may dispose of unwanted containers in the sanitary waste collection.
- Do not pour pesticides or spray mixtures down any drain, toilet, sink, or storm drains.

Pressurized Cans

- Do not puncture or burn empty pressurized (aerosol) containers. They may explode.
- Do not leave them on a stove, in direct sunlight, or in the trunk or glove compartment of a car. Do not use near open flames.
- Do not spray near the face. Do not inhale fine sprays.
- To dispose of pressurized cans, exhaust all gas through the release valve and place in a trash can.

Sensitivity or Accidental Poisoning

Some people may be allergic or have a special sensitivity to pesticides. If you find you are allergic to a particular pesticide or formulation, select another suitable product for the purpose. Pesticides should be used

with extreme caution where persons with respiratory ailments such as emphysema live. If you are pregnant or suspect you might be, try to minimize your exposure to pesticides.

If you experience headache, nausea, or blurred vision following use of or exposure to a pesticide, or if you accidentally swallow any pesticide, call a physician or Poison Control at 1-800-222-1222 immediately. Read the label to them, naming the active ingredient. If it is necessary to go to the physician's office or the hospital, take the pesticide container so the physician can properly identify the pesticide.

Pesticides are tools, not playthings. They can be used safely. It is your responsibility to see that they are.

Oklahoma Poison Control Center

The Oklahoma Department of Health of Oklahoma City maintains a 24-hour Poison Control Center for diagnosis and treatment of human illness resulting from toxic substances. Make sure your physician knows the telephone number of the Oklahoma Poison Information Center.

Oklahoma Poison Information Center
1-800-222-1222 or
www.oklahomapoison.org

READ BEFORE WASHING

CLOTHING WORN WHILE APPLYING PESTICIDES

- All clothing worn while handling or applying pesticides is contaminated!!
 - Handle ALL contaminated clothing with gloves
 - Wash clothing daily
 - Wash separately from family wash
 - Prerinse or presoak
 - Use HOT water
 - Use heavy-duty liquid detergent
 - Wash only a few items at a time
 - Use highest water level
 - Use longest wash time
 - Line dry

After washing — run machine through a complete cycle with detergent

POISON CONTROL CENTER
1-800-222-1222



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Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Robert E. Whitson, Director of Cooperative Extension Service, Oklahoma State University, Stillwater, Oklahoma. This publication is printed and issued by Oklahoma State University as authorized by the Vice President, Dean, and Director of the Division of Agricultural Sciences and Natural Resources and has been prepared and distributed at a cost of 20 cents per copy. 0902