UNIVERSITY OF GEORGIA
EXTENSION

# Pesticide Safety for the Homeowner

*Revised by Timothy Daly*
*Agricultural and Natural Resources Agent*
*Gwinnett County Cooperative Extension*

*Original manuscript by Keith S. Delaplane*
*Extension Entomologist*

Insects, weeds, rodents and plant disease microorganisms compete with homeowners for food and living space. When these pests reach damaging levels, using chemical pesticides is sometimes the best way to control them. A **pesticide** is a product (usually a chemical) designed to kill offending organisms; such products include insecticides, herbicides, fungicides, bactericides and rodenticides. By their nature, pesticides are hazardous and demand cautious handling. **When they are used properly**, however, pesticides improve the quality of our food supply, protect our health and increase our comfort with little risk to the environment and non-target living things. **The most important consideration for the safe, effective use of pesticides is to follow all label directions and safety precautions.**

## What Are Your Options?

Chemical pesticides are not the only way to limit pests. In fact, some pest problems can be solved entirely with non-chemical controls.

First, determine whether a pest problem truly exists. Most insects, animals, plants and microorganisms on your property are harmless. If you see a suspicious insect, plant or animal on your property, your county Extension agent can help you identify it and decide whether it warrants control. **You need to properly identify the pest in order to select a control method.**

For insects and rodents around the house, basic sanitation and house-tightening can help. Lush gardens harbor many insects, weeds and plant disease microorganisms, but some of these pests can be limited by non-chemical means. Pests may reach damaging levels in spite of your non-chemical control efforts. In such cases, use of chemical pesticides may be justified to reduce pest populations to non-damaging levels. Your county Extension agent can help you select the right pesticide and dosage for your specific need. Certain pest situations and pesticide uses require the services of a professional, licensed pest control operator.

## Always Read the Label!

The pesticide label gives you all the information you need to safely, effectively and legally use the product. Follow the instructions exactly. The instructions are intended to ensure your safety and give you the best results. Label information will usually include:

**Chemical Name:** A long name of the active chemical ingredients.

**Common Name:** A shorter name for the pesticide.

**Brand Name:** The name used in advertisements.

**Formulation:** The form of the product (e.g., liquid, wettable powder or dust).

**Name and Address of Manufacturer**

**Signal Words:** These words indicate the potential hazard of the product to humans. The following table describes the three signal words.

| Signal Word | Toxicity | Amount that would kill an average adult |
|---|---|---|
| Danger | highly toxic | a taste to 1 teaspoon |
| Warning | moderately toxic | 1 teaspoon to 2 tablespoons |
| Caution | fairly low toxicity | 1 ounce to more than 1 pint |

**Precautionary Statement**: A description of how the product is hazardous to humans and animals; includes measures you can take (such as wearing protective clothing) to reduce exposure. Sometimes gives instructions to physicians for proper treatment.

**Statement of Practical Treatment**: Describes emergency first-aid measures.

**Directions for Use**: Tells you the pests the product is registered to control, sites on which the product can be used, in what form the product is applied, how much to use, and when and where the product should be applied. For example, the insecticide Mycoblutanil is a fungicide that is labeled for applications to turfgrass and some ornamental plants; however, it is not labeled for use on vegetables. Be sure to get a product labeled for both the **pest** and the **site** you wish to treat.

**Misuse Statement**: A reminder that it is illegal to use the product in a manner inconsistent with its labeling. Do not use the product on a site not listed on the label. Do not use higher rates than indicated. If a little does the job, a lot will **not** do better.

## Handle Pesticides Safely!

From purchase to disposal, pesticides demand cautious handling. Follow these guidelines when you use a chemical pesticide.

- Read the label before you buy the product to be sure it is registered for the pest and site you wish to treat. Observe the signal words and select the safest product possible.
- Read the entire label before using the pesticide and follow all instructions exactly.
- Observe all safety precautions on the label, such as "Keep out of reach of children" and "Do not use near fire, sparks or flame."
- Wear protective clothing, especially any items specified on the label. Always wear liquid-proof gloves and shoes, a long-sleeved shirt, long pants and a wide-brimmed hat.
- Never eat, drink, smoke or go to the bathroom while handling pesticides; wash your hands first.
- If you must mix or dilute the pesticide, do so only in well-ventilated areas. Mix only the amount you need; do not mix a large batch and store for later use.
- Remove pets and toys from areas to be treated. For kitchen cabinets, remove food, dishes, pots and pans before you spray the shelves. Wait until shelves are dry before returning utensils.
- Provide good ventilation while you are applying a pesticide indoors. If you are applying a pesticide outdoors, close the windows of your house.
- Avoid mixing or applying pesticide near wells or open water.
- Do not apply pesticide to blooming plants, especially if honey bees or other pollinating insects are visiting them. If you must treat blooming plants, do so in early evening and use a non-dust formulation. Do not spray birds' nests.
- Evaluate your control effort. If it is unsatisfactory, consider these possibilities:
  - Did you correctly identify the pest and use the correct pesticide?
  - If you used a wettable powder, did you shake the tank frequently? If not, the pesticide may have settled to the bottom of the tank, so you sprayed only water.
  - Did you apply the pesticide to the correct site? For example, you must spray for spider mites and aphids on the undersides of leaves, not the tops.
  - Did you time your treatment correctly? For example, it is more effective to treat pests while their populations are low than to wait until populations are high.
  - Rainfall shortly after your treatment may reduce its effectiveness. Even in this case, you must still follow re-treatment intervals stated on the label.
  - Old product (more than two years) may have lost its effectiveness.
  - The pests may be resistant to the pesticide - but this is usually not the case in around-the-home pest control.

When you are finished, wash yourself and your clothes. Showering is better than bathing because pesticide lingers in bath water. Clothing should be pre-rinsed, washed with heavy-duty detergent and line dried (the sun's rays break down some pesticides). Your county Extension agent has more information on laundering pesticide-contaminated clothing.

## Store Pesticides Properly

Chemical pesticides cannot be stored in the same way as other household items. Follow these precautions:

- Do not store pesticides near food, seed, animals or flammable materials.
- Store pesticides in a locked place out of reach of children, unauthorized people and pets. Keep the area dry, cool, ventilated and out of direct sunlight.
- Store the pesticide in its original container. If you must transfer it to a different container, be sure to transfer the label also. **Never store pesticide in an old food or drink container, because someone may mistake it for something edible.**
- Check containers often for leaks.
- Keep the storage area clean and well organized.
- Have spill kits and first aid kits readily available in case of an accident.
- Do not store pesticides for more than two years; many break down after this time.

## Dispose of Excess Pesticides Properly

If you have pesticide that you don't need:

- Give, sell or trade it to someone who can use it according to the label, or
- Wrap the container in several layers of newspaper and put it in the household trash (if not prohibited by the label directions).

## Dispose of Containers Properly

Empty pesticide containers are considered hazardous waste unless they are properly processed. Follow these guidelines:

- Rinse each container at least three times, add the rinse to your spray tank, and apply the mix to a labeled site.
- Punch holes in metal, plastic or cardboard containers, crush them, wrap them in newspaper and put them in the household trash (if not prohibited by the label directions).

## Handle Spills Correctly

Accidental pesticide spills require special handling. Follow these guidelines:

- If a pesticide is spilled on someone, wash it off at once and give the correct first aid as indicated on the label.
- **Do not** hose down the area. This only spreads the pesticide.
- Confine the spill with newspaper, sand, sawdust or soil.
- Absorb the pesticide with soil, sawdust or kitty litter; put the absorbed material in a garbage bag and put it in the garbage.
- Keep children and pets out of the area until it is cleaned up.

## Know the Correct First Aid

Most pesticides for use by homeowners have fairly low human toxicity. The greatest risk with these products is from exposure to the concentrate. Symptoms of pesticide poisoning -- in order of increasing seriousness -- include headache, dizziness, restlessness, skin irritation, nausea, diarrhea, trembling, rapid pulse, fever, vomiting, pinpoint pupils, convulsions, unconsciousness and death. Early symptoms of pesticide poisoning can easily be mistaken for symptoms of other illnesses. Because they see poisoning cases so rarely, physicians often do not consider the possibility of poisoning when diagnosing emergency-room cases. If you suspect you or someone else has been poisoned, **keep the product label with you as reference for medical personnel.**

First aid is the help you can provide a victim while medical help is on its way. First, remove the victim from exposure and make sure the victim is still breathing, then call an ambulance. Pesticides can accidentally enter the body through the mouth, nose, eyes and skin. Proper first aid depends somewhat on the way the pesticide entered the body. While you are waiting for help to arrive, do the following:

**<u>For Skin Exposure</u>**

- Remove clothing.
- Drench skin with water.
- Clean skin and hair thoroughly with detergent and water.
- Dry the victim and wrap him or her in a blanket.

**For Eye Exposure**

- Hold eyelids open and gently wash with running water for at least 15 minutes.
- Do not use chemicals or drugs in the water.

**For Inhaled Exposure**

- Carry victim (do not let him/her walk) to fresh air. Open all doors and windows.
- Loosen all tight clothing.
- Give artificial respiration if breathing has stopped and cardio-pulmonary resuscitation (CPR) if the heart has stopped.
- Keep the victim quiet.

**For Swallowed Exposure**

- Quickly determine from the label if you should induce vomiting. This is often the correct action, but there are important exceptions. When vomiting is recommended, make the victim sit up and drink large amounts of water of milk, then put your finger on the back of the victim's throat.
- Never induce vomiting if the victim is unconscious or convulsing.

## Poison Control Centers

Georgia has several Poison Control Centers that provide around-the-clock information on toxic substances. These are valuable resources during emergencies involving poisons.

**Have This Information Ready When You Call:**

- Your name, address and telephone number.
- The brand name of the suspected toxin and its label.
- How did the victim take in the toxin (swallowed, on skin, inhaled)?
- How long ago did exposure occur?
- What are the symptoms?
- If the victim is a child, what is the child's weight?
- What is the health history of the victim?

**What a Poison Control Center Can Do for You:**

- Evaluate the seriousness of the problem. Many types of exposure can be treated at home; others are truly life-threatening and demand immediate medical attention.
- Advise first-aid treatment.
- Refer you to experts if needed.

**Poison Control Center Telephone Number:**
**Toll-free 1-800-222-1222**

**extension.uga.edu**

**Circular 998** **Reviewed March 2017**

Published by the University of Georgia in cooperation with Fort Valley State University, the U.S. Department of Agriculture, and counties of the state. For more information, contact your local UGA Cooperative Extension office.