



Using Pesticides Safely

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What is the first thing we do when we have a major pest problem? We think about what we need to control the problem. We grab our old faithful pesticide sprayer and we figure out what and how much we need to mix for control. Do we think about safety first? We should.

Before we talk about pesticide safety, what exactly is a pesticide? Pesticides are chemicals used to destroy, prevent, or control pests. Pests include weeds, diseases, and insects. “Pesticides” can mean an herbicide, fungicide, insecticide, rodenticide, etc. Pesticides also include chemicals used to regulate plant growth, remove, or coat leaves.

Pesticide safety is important in the protection of people, animals, and the environment. Before deciding which pesticide might be needed for a job, the applicator must first identify the pest. The applicator should determine available resources, what needs must be met, and any problems or limitations that might be encountered.

READ the LABEL

Reading the pesticide label is the most valuable few minutes you can spend in pest control. The label provides instructions on how to use the pesticide and is the primary source of information to the user. Read the label before buying any pesticide, so that you make sure you are buying the correct product for the job. Read the label before storing the product, disposing of unused pesticide, or disposing of empty product containers. It is a violation of federal law to misuse a pesticide. Read the label before mixing and loading to be sure that you are mixing the proper amount at the proper rate for whatever job you need to do. Read the label for the proper personal protection equipment you should wear. Reading the label is a small investment of time that can help you avoid injuring yourself, others, or the environment by misusing a pesticide.

There are different sections of the label; each part is important. It’s very important to make sure that you are familiar with the product label. Some of the components include the brand

name, ingredient statement, registration number, establishment number, manufacturer’s name and address, net contents, type of pesticide, and directions for use. The label also gives warning statements so that you know the potential dangers and safety steps that should be taken in an emergency.

DANGER!

There are four different ways that a chemical can enter the body. These routes include *dermal* exposure (skin contact), *oral* exposure (by mouth), *inhalation* (breathing in to the lungs), and *ocular* exposure (eye contact). Absorption through the skin, the most common route of exposure, can result in itching, blistering, or a rash. Symptoms that could be experienced from oral exposure can include a burned mouth, sore throat, or an upset stomach if the pesticide has been ingested. If pesticides are inhaled, an applicator can experience pain or tightness in the chest. Exposure to a chemical through the eyes can result in irritation, as well as temporary or permanent blindness.

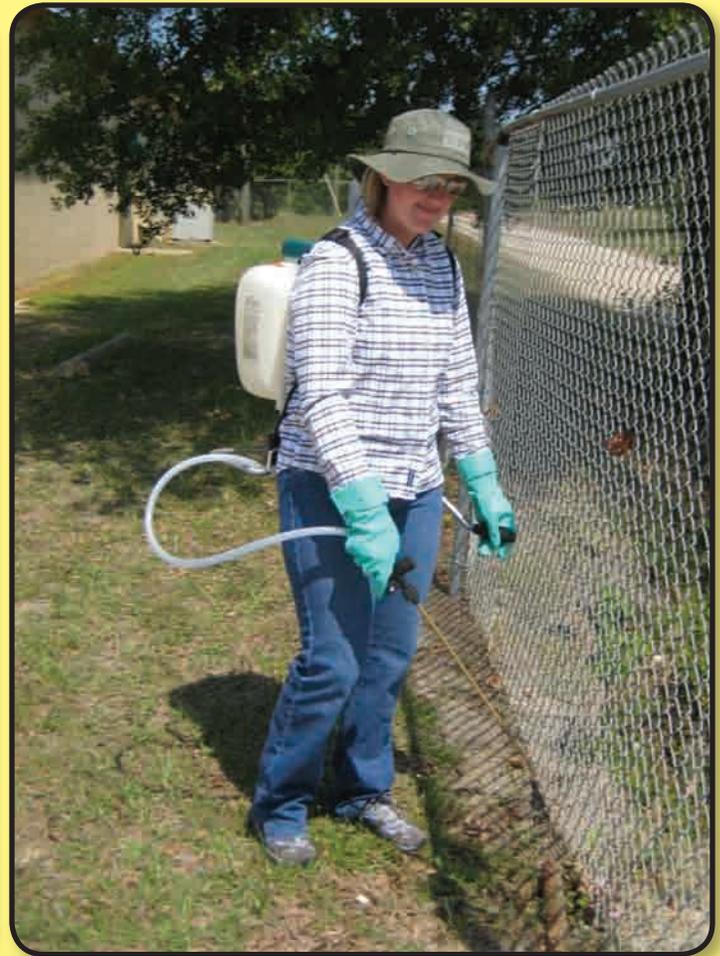
Pesticides have different types of toxicity. They include acute, delayed, and allergic effects. Acute effects are usually an immediate and obvious response to a chemical. Symptoms occur from a single exposure and develop within 24 hours after exposure to the offending chemical. Be sure when working with pesticides that you don’t work alone, and that there are copies of all pesticide labels you are using in case of an emergency.

Acute symptoms that you could experience can include headache, giddiness, nausea, blurred vision, and/or chest pains. If you experience any of these symptoms when working with pesticides, you need to seek medical attention as soon as possible. Be sure to take a copy of the pesticide label with you to the doctor. This will let the doctor know what you have been exposed to and how to treat the symptoms.

Delayed or “chronic” effects are usually from long-term, repeated exposure. A few examples of symptoms that might be seen are tumors, gene effects, miscarriage, birth defects, infertility, sterility, and nervous system disorders.



What NOT to Wear – In this photo, the applicator is not dressed in long pants, long sleeves, gloves, or head protection as required when using pesticides.



Proper Minimum PPE Requirements – The applicator in this photo is wearing the minimum personal protective equipment (PPE) for working with pesticides: long pants, long sleeves, gloves, eye protection, hat, shoes, and socks.

Allergic effects are an immune system response to a chemical. Symptoms that an applicator could experience are asthma problems, shock, rash, blisters, sores, itchy/watery eyes, and/or sneezing. When an applicator is allergic to a given chemical, he or she will experience their particular symptoms every time they are exposed to the chemical.

Different signal words are used on pesticide labels to indicate the acute toxicity of a given chemical. Those with “DANGER POISON” illustrated with skull and crossbones are highly toxic chemicals. “DANGER” can cause severe eye damage or skin irritation. “WARNING” is a moderately toxic chemical, and “CAUTION” is a slightly toxic chemical.

Personal Protective Equipment (PPE)

In order for you to reduce exposure to pesticides, you should wear the proper personal protective equipment (PPE). Be sure to read the pesticide label . . . the minimum PPE required for a given pesticide is listed on its label. Dermal exposure can be reduced 99 percent simply by wearing chemical-resistant gloves and a long-sleeve shirt. The minimum PPE that an applicator should wear is long pants, long-sleeved shirt, gloves, eye protection, shoes, and socks. It is especially important to wear the

required PPE when mixing and loading chemicals because this is the time when you will be exposed to the most concentrated form of the pesticide; an apron is strongly recommended.

After handling or working with pesticides, make sure that you wash thoroughly with soap and water. Take a shower as soon as you finish for the day or if you have been exposed to a chemical. Chemical residue can be transferred to anything you touch prior to washing. Be sure to wash your hands before eating, drinking, or using tobacco products, as well as before going to the bathroom.

Summary

To use a pesticide correctly and safely, start by reading and following the pesticide label instructions carefully. Read the label before you purchase the product so you know that you are purchasing the correct product for the job. Read the label before you use the product so that you know how to use it correctly and what safety measures you need to take. Also, make sure that you are prepared for the unexpected. Take general safety steps so that you are prepared for an accident. Post the National Poison Control Center telephone number (1-800-222-1222) in case of an emergency. ☞