

Tailgate Safety Training for Landscaping and Horticultural Services

Agricultural Safety Program, 590 Woody Hayes Drive, Columbus, OH 43210

Reading Pesticide Labels

Objective: Identify important information in pesticide labels and the meaning of that information.

How to Use This Module

Pesticide labels explain how to use pesticides safely. For this module:

- Review the information below on:
 - ◆ When to read pesticide labels.
 - ◆ What information they contain.
- Ask your supervisor to show you some labels. Discuss what the labels say. Discuss how to use the information and why it is important.
- Review the Material Safety Data Sheet (MSDS) for the same product. Compare the information on the MSDS and the label.
- Take the True/False quiz to check your learning.

Note: Do not use the label on an open container. Your supervisor will obtain sample labels from a dealer or from the Internet. Or, use labels on unopened containers.

Background



Before applying pesticides, workers must know what the label says. The label is the law! The label shows a number of things:

- The chemical formulation.

- Signal words: DANGER, WARNING, CAUTION.
- Precautionary statements.
- Personal protection equipment (PPE) statements.
- Application method.
- Projected length of exposure.

Workers can use pesticides safely and correctly if they read the label.

When to Read the Label

- Before purchasing the pesticide. The pesticide must be registered for your intended use. You must make sure there are no restrictions that would prohibit its use.
- Before mixing and applying the pesticide. Understand how to mix and safely apply the pesticide. Know the first aid needed if an accident occurs.
- When storing pesticides. Pesticides can break down and contaminate storage areas. They are also fire hazards. So they must be stored properly. The pesticide storage center should be securely locked. You should store pesticides by hazard classes:
 - ◆ Solvent-based products like Dimethoate 2.67 EC.
 - ◆ Corrosive alkalis like bleach or lime.
 - ◆ Corrosive acids like muriatic acid.
 - ◆ Fertilizers.
- Before disposing of unused pesticide and empty containers: Workers must prevent environmental contamination and human health hazards. Reduce carryover; buy only what is needed for this season. Try to find a use for all of the pesticide. Never pour pesticides down a drain. Pesticides are hazardous waste. Follow state and federal regulations when you use them and dispose of them.

For more details on pesticide safety, see the Tailgate Safety Training module *Mixing and Spraying Pesticides*.

What Does the Label Contain?

- Brand name. The name the manufacturer gives to the pesticide.
- Chemical name. The name chemists use to describe the chemical structure of the pesticide.
- Common name. Most pesticides also have an official common name. For example, horticultural oil is a common name. Common names and brand names are not the same. Not all labels list a common name.
- Formulation. Labels always list the formulation type. Some examples are emulsifiable concentrate (EC), wettable powder (WP), or soluble powder (SP).
- Ingredients. The label lists the percentage of active and inert ingredients by weight. Inert ingredients do not have pesticidal action.
- Contents. The label lists the net contents, by weight or liquid volume, contained in the package.
- Manufacturer. The label always lists the name and address of the manufacturer.
- Registration and establishment numbers. The Environmental Protection Agency (EPA) and other agencies assign these numbers. Keep track of EPA numbers if there are problems or recalls.
- Signal word. The registration process determines how toxic each pesticide is. Standard signal words must be used on the label:

Category	Signal Word
High toxicity	DANGER
Moderately toxic	WARNING
Low toxicity	CAUTION
Relatively non-toxic	NONE

- Precautionary statements. These describe the hazards associated with the chemical. They tell why the pesticide is hazardous. They list adverse effects. They state what PPE must be worn.
- Statement of practical treatment. This tells what to do in case of accidental exposure.
- Statement of use classification. The EPA classifies pesticides as either General-Use or Restricted-Use. Restricted-use pesticides can harm people, animals, or the environment.
- Directions for use. The directions tell how to apply the pesticide. They include how much to use, where to use it, and when to apply it. They also include the preharvest interval for all crops whenever appropriate.
- Misuse statement. This tells users to apply pesticides according to label directions.
- Re-Entry Interval (REI) statement. Sometimes, a certain amount of time must pass before a person can re-enter an area treated with a pesticide. This is the REI. The REI is included on the label or in state regulations.
- Storage and disposal directions. Improper storage can cause some pesticides to lose their effectiveness. It can also cause an explosion or fire. The label contains directions for proper storage and disposal.
- Warranty. The label informs you of your rights as a purchaser. It also limits the manufacturer's liability.

The Material Safety Data Sheet (MSDS) also contains information on the pesticide. For more detail, refer to the Tailgate Safety Training module *Material Safety Data Sheet (MSDS)*.

Review These Important Points

- Always read the labels before applying pesticides.
- Know what the warnings are and what they mean.
- Signal words identify the toxicity level. They represent relative risk.
- Know the signs of exposure before opening a container. Watch for those signs while working with the pesticide.
- Know the recommended response to accidental exposure before working with or around pesticides.

About These Modules

The author team for the training modules in the landscape and horticultural tailgate training series includes Dee Jepsen, Program Director, Agricultural Safety and Health, Ohio State University Extension; Michael Wonacott, Research Specialist, Vocational Education; Peter Ling, Greenhouse Specialist; and Thomas Bean, Agricultural Safety Specialist. Modules were developed with funding from the Occupational Safety and Health Administration, U.S. Department of Labor, Grant Number 46E3-HT09.

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Answer Key: 1 = F, 2 = T, 3 = F, 4 = T, 5 = T.

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Name _____

True or False?

1. Storage and disposal instructions will not be found on the label. They are unimportant. T F
2. You should read the label to know how to mix and safely apply the pesticide. T F
3. Re-entry restrictions only apply to workers who work full time in the restricted area. T F
4. Danger on the label means high toxicity. T F
5. Read the label to find out what personal protection equipment to use. T F