

# Pesticides: Learning about Labels

A-1098, October 1995

Pesticides provide many benefits and improve the quality of life when they are used carefully and properly. Pesticides can control, destroy or repel pests such as weeds, insects, rodents, birds, fungi, bacteria or other organisms that are unsightly or annoying, cause loss or damage, or may be harmful to health. Pesticides handled in a careless manner can endanger the health of the applicator, other people, animals, plants, or the environment.

The pesticide label provides valuable information about proper handling and use of the pesticide, potential risks the pesticide may pose, and instructions on how to minimize or avoid those risks. Every pesticide applicator has the responsibility to read and follow the label information so no harm will result from misuse or mishandling of pesticides.

The pesticide label should be read at several critical times to make sure the expected benefits are realized and harm is prevented.

## Before you buy a pesticide, read the pesticide label to determine:

- If the pesticide will control the pest or pests.
- If the pesticide can be applied safely and legally under the application conditions.
- Where the pesticide can and cannot be applied.
- Necessary application and safety equipment.
- The amount of pesticide needed for the application (buy only the amount needed).
- Relevant restrictions for use of the pesticide.

Compare different pesticide labels, because often several different products will control the same pest. A comparison of the labels and product prices will help select the product that controls the pest and is less toxic and/or less expensive.

## Before you mix the pesticide, read the label to determine:

- Protective equipment you should use.
- Compatibility of the pesticide with other products or additives.
- Amount of the pesticide to use.
- Mixing procedure.

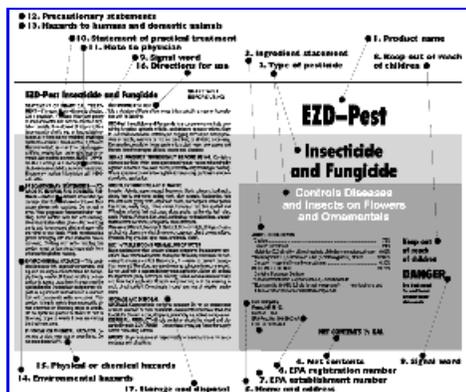
## Before you apply the pesticide, read the label to determine:

- Safety measures you should follow.
- Procedures to follow to minimize potential harm to people, animals, plants or the environment.
- How to apply the pesticide.
- When to apply the pesticide (including the limitations about reentering a treated area and the minimum number of days that must elapse after the application before vegetables, fruits, or other crops can be harvested).

## Before you store or dispose of the pesticide or pesticide container, read the label to determine:

- Where and how to store the pesticide.
- Pesticide Label Information
- How to decontaminate and dispose of the pesticide container.
- Where and how to dispose of surplus pesticides.

# Pesticide Label Information



By law, certain kinds of information must appear on a pesticide label. Pesticide applicators have the legal responsibility to read, understand and follow the label directions. Pesticide labels will usually contain the following sections:

## 1. Product name:

Every pesticide has a product name or a trade name. Examples of some product names include Deep Woods Off Insect Repellent, Black Flag Ant & Roach Killer, Lysol Brand Disinfectant Deodorizing Cleaner, Roundup Herbicide, and Hi-lex Bleach.

## 2. Type of pesticide:

The label must indicate what type of pesticide the product is or what types of pests it will control.

## 3. Ingredient statement:

Each pesticide label must include the active and inert ingredients in the product. The list is written to show what the active ingredients are and the amount of each ingredient listed. The ingredient statement must list the official chemical names and/or common names for the active ingredients. Inert ingredients need not be named, but the label must show what percent of the total contents they comprise.

Check the active ingredients when comparing pesticides. Many different pesticides will contain the same active ingredient. By purchasing pesticides according to the common or chemical name you will be sure you are getting the right active ingredient no matter what the trade name or formulation is. When comparing two different products with the same active ingredient, be sure to compare the amount of active ingredient in each product. Often products will contain the same active ingredient, but in different concentrations. Make comparisons based on use rates that contain the same amount of active ingredient.

## 4. Net contents:

The net contents statement on the front panel of the pesticide label will tell you how much product is in the container.

## 5. Name and address of the manufacturer of the pesticide.

## 6. EPA registration number:

The EPA registration number indicates that the pesticide has been registered by EPA and legally may be sold or applied according to label directions. The EPA registration is not a guarantee of safety in all situations.. The EPA registration number usually has two numbers. The first number identifies the company and the second number identifies the product.

## 7. EPA establishment number:

The EPA establishment number identifies the establishment or facility where the pesticide was manufactured. The first number indicates the company and the second the location.

## **8. Keep out of reach of children precaution:**

The keep out of reach of children warning statement is required to be on all pesticide containers. Many accidental poisonings and personal tragedies could be prevented by observing this precaution.

## **9. Signal word:**

The signal word indicates approximately how toxic the pesticide product is. Products that are highly toxic must display on the label the signal words DANGER-POISON along with a skull and crossbones symbol. Products that display only the signal word DANGER are corrosive and can cause irreversible eye damage or severe skin injury. Products that display the signal word WARNING are moderately toxic or can cause moderate eye or skin irritation. Products that display the signal word CAUTION are slightly toxic or may cause slight eye or skin irritation.

## **10. Statement of practical treatment:**

The statement of practical treatment lists the first aid treatment that should be administered to someone accidentally exposed to the pesticide.

## **11. Note to physicians:**

The note to physicians provides emergency medical personnel with poison treatment information, antidotes, and often provides an emergency phone number to contact for further information.

## **12. Precautionary statements:**

Precautionary statements identify potential hazards and recommend ways that the risks can be minimized or avoided. Types of precautionary statements include "Hazards to Humans and Domestic Animals," "Environmental Hazards," and "Physical or Chemical Hazards."

## **13. Hazards to humans and domestic animals:**

The signal word is listed, followed by statements indicating which route(s) of entry (mouth, skin, lungs, eyes) are most likely to be harmful and must be particularly protected against. The label will then provide specific actions that can prevent overexposure to the pesticide. Protective clothing and equipment required to handle or apply the pesticide will be listed under the heading "Hazards to Humans and Domestic Animals."

## **14. Environmental hazards:**

The environmental hazards section of the label warns of pesticide risks to wildlife, birds, fish, bees or to the environment and provides practical ways to avoid harm to organisms or the environment.

## **15. Physical or chemical hazards:**

The physical or chemical hazards section of the label will tell you of any special fire, explosion, or chemical hazards the product may pose.

## **16. Directions for use:**

The directions for use section of the pesticide label begins with the statement, "It is a violation of Federal law to use this product in a manner inconsistent with its labeling."

Correct application of a pesticide product is accomplished by following the use instructions found on the label. The use instructions will tell you the pests which the manufacturer claims the product will control, the crop, animal, or site the product is intended to protect, when, where, how, and in what form the product should be applied, the proper equipment to be used, the correct dosage, mixing directions, compatibility with other often-used products, minimum time between the application and entry into the treated area for unprotected persons, and possible plant injury problems.

Labels for pesticides used on food plants will often list the days-to-harvest or preharvest interval (PHI), which is the minimum number of days between the last pesticide application and crop harvest. The pesticide is degraded during PHI so that pesticide residues, if present, will be at levels below tolerances established by EPA.

## 17. Storage and disposal:

All pesticide labels contain general instructions for the appropriate storage and disposal of the pesticide and its container.

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Protection of people and the environment from harm from pesticides is based primarily on three factors:

1. Pesticides must be registered by the U.S. Environmental Protection Agency before they can be sold or applied.
2. Pesticide labels provide necessary information to pesticide users.
3. Pesticides must be used according to label instructions.

The pesticide registration process requires extensive testing for potential adverse health and environmental effects for each registered pesticide. The process of registering a pesticide takes several years and costs millions of dollars. Pesticide labels are developed to inform applicators about safe and proper use of the product, warn about potential risks, and recommend methods to avoid risks.

The pesticide label should be read, understood and followed before the pesticide is purchased, mixed, applied, stored, or disposed of. Anyone possessing, handling, or applying a pesticide is responsible and can be held liable for any damage, loss, or unintended consequences that the pesticide may cause.

Handling and applying pesticides requires knowledge, care, and good judgement, and every applicator needs to read, understand, and follow the pesticide label instructions.

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Black Flag ♦ is a registered trademark of Boyle-Midway Household Products, Incorporated.

Deep Woods Off ♦ Insect Repellent is a registered trademark of S. C. Johnson & Son, Incorporated.

Hi-lex ♦ is a registered trademark of The Dial Corporation.

Lysol ♦ is a registered trademark of Lehn and Fink Products Group.

Roundup ♦ is a registered trademark of Monsanto Company.

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## References:

1. Dahl, G. K., et. al, 1991, Private Applicator Certification Manual, NDSU Extension Service, Fargo, ND.
2. Gardner, R. D., et. al., 1990, Pesticide Applicator Training Manual: Core Manual, 2nd Ed., Chemical-Pesticides Program, Cornell University, Ithaca, NY.
3. Hock, W. K., et. al., 1992, Pesticide Education Manual, 2nd Ed., College of Agricultural Sciences, Pennsylvania State University, University Park, PA.

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## North Dakota Toll-Free Pesticide Poison Information 1-800-732-2200

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