

## Read the Label

- before you purchase the pesticide,
- before you mix the pesticide,
- before you apply the pesticide, and
- before you store or dispose of the pesticide.



## The Label is the Law

Understand what you are reading. Ask questions if the label isn't clear to you. As a buyer, you assume responsibility for the consequences if the product is used in any manner different from the label directions.

labels contain a note to physicians describing the appropriate medical procedures for poisoning emergencies and may identify an antidote.

**Environmental Hazards Statements** warns of potential hazards to the environment. Read closely for special warning statements.

**Special Toxicity Statements** warn of potential hazards to wildlife, insects, or aquatic organisms. These statements help us choose the safest product for a particular job.

**General Environmental Statements** appear on almost every pesticide label. They are reminders to use common sense to avoid contaminating the environment.

**Physical or Chemical Hazards Statements** tell of special fire, explosion, or chemical hazards the product may pose.

**Classification Statement** indicates whether the EPA has classified the pesticide as a "general" or "restricted" use pesticide. Just because a product is a "general" use pesticide, doesn't mean that the product has a low hazard level. Use the signal words and precautionary statements to judge the toxicity hazard of the pesticide.

**Reentry Statements** are included on pesticide labels that have "DANGER" or "WARNING" signals. These statements tell how much time must pass before people can reenter a treated area without appropriate protective clothing. The reentry intervals are set by both EPA and some states. The reentry statement may be printed in a box under the heading "Reentry" or it may be in a separate section with a title such as "Important," "Note," or "General Information."

If no reentry statement appears on the label, then sprays must be dry or dusts must be settled before reentering or allowing others to reenter a treated area without protective clothing. This is the minimum legal reentry interval.

**Storage and Disposal** instructions for the pesticide and its container are included on all pesticide labels.

**Directions for Use** is a critical part of the label. This tells you, the consumer, how to use the product. It gives information about the pests the product claims to control; the crop, animal, or site the product is intended to protect; the form in which the product should be applied; the proper equipment to be used; how much to use; mixing directions; compatibility with other often-used products; phytotoxicity; other possible injury or staining problems; as well as where and when the material should be applied. Additional information includes the least number of days which must pass between the last pesticide application and harvest of crops. This is known as the pre-harvest interval (PHI). This interval is set by EPA to allow time for the pesticide to break down in the environment which prevents illegal residues on food, feed, or animal products and possible poisoning of grazing animals.

## ... and justice for all

The Iowa Cooperative Extension Service's programs and policies are consistent with pertinent federal and state laws and regulations on nondiscrimination. Many materials can be made available in alternative formats for ADA clients.

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# Understand Pesticide Labels



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University Extension

The use of pesticides is an individual decision based upon damage levels occurring, injury tolerance, and personal viewpoint. When the decision is made to use a pesticide, it is critical to select the appropriate product for the job and to understand what the product can do when used properly.

The term pesticide is a broad umbrella under which insecticides, fungicides, herbicides, and algicides fall. Insecticides control insects; fungicides control diseases; herbicides control undesirable tree, brush, and weed growth; and algicides control the growth of algae. Every pesticide is labeled with instructions on how to safely use the product. Some labels are easy to understand, others are more difficult.

Labels mean different things depending on your point of view. The label is a “license to sell” to the manufacturer. To the state or federal government, it is a way to control the distribution, storage, sale, use, and disposal of the product. To the buyer or user, the label is a source of facts on how to use the product correctly and legally. To physicians, the label is a source of information on proper treatment for poisoning cases. The label on the pesticide product is the law. It is illegal to use a pesticide on a crop or in higher concentration unless it is specifically listed on the label.

Every manufacturer has a **Brand, Trade or Product Name** for its pesticide. Different manufacturers use different brand names for products containing the same active ingredient. Most companies will register brand names as a trademark which restricts other companies from using that name. The brand or trade name is the one used in ads and by company salespeople. It also shows up plainly on the front panel of the label.

The **Common Name** of a pesticide is a shortened, simpler version of the complex chemical name. It is included in the **Ingredient Statement** on the label. Only common names which are officially accepted by the U.S. Environmental Protection Agency (EPA) may be used in the ingredient statement of the pesticide label. The **Chemical Name** is the complex name which identifies the chemical components and

structure of the pesticide. The chemical name is also listed in the ingredient statement. Other requirements of the ingredient statement are to include the amount (in percentage) of each ingredient listed. Inert ingredients need not be named, however, the percentage of the total contents they comprise must be shown.

On the front panel of the pesticide label is a statement indicating the **Type of Pesticide** and general terms of what the product will control. A pesticide is limited in what it will control successfully. The front label also includes the **Net Contents**. This can be expressed in pounds, or ounces for dry formulations, and as gallons, quarts, or pints for liquids. Liquid formulations may also list the pounds of active ingredient per gallon of product. Pesticides are available in a variety of formulations and each is used in its own way. Thus a wettable powder is not the same as a dust.

**Signal Words and Symbols** used on the label are important clues in recognizing how potentially dangerous the product is to humans. The signal word must appear in large letters on the front panel of the pesticide immediately following “Keep Out of Reach of Children” which must appear on every pesticide label.

DANGER signals that the pesticide is highly toxic. A taste to a teaspoonful taken by mouth could kill an average sized adult. Any product which is highly toxic orally, dermally, or through inhalation or causes severe eye and skin burning will be labeled “DANGER.” In addition, all pesticides which are highly toxic orally, dermally, or through inhalation will also carry the word “POISON” printed in red and the skull and crossbones symbol.

WARNING signals that the product is moderately toxic. As little as a teaspoonful to a tablespoonful by mouth



could kill the average sized adult. Any product which is moderately toxic orally, dermally, or through inhalation or causes moderate eye and skin irritation will be labeled “WARNING.”

CAUTION signals that the product is slightly toxic. An ounce to more than a pint taken by mouth could kill the average adult. Any product which is slightly toxic orally, dermally, or through inhalation or causes slight eye and skin irritation will be labeled “CAUTION.”

**Precautionary Statements** are included on pesticide labels to help you decide the proper steps to take to protect yourself, your helpers, and other persons (or domestic animals) who may be exposed. These statements are sometimes listed under the heading “Hazards to Humans and Domestic Animals.”

**Route of Entry Statements** immediately follow the signal word, either on the front or side of the pesticide label and indicate which route or routes of entry (mouth, skin, lungs) you must particularly protect. Many pesticide products are hazardous by more than one route. The statements are not uniform on all labels; many variations may be found. A single label can have several precautions stated.

**Specific Action Statements** follow the Route of Entry statements and tell the consumer the specific action that should be taken to prevent poisoning accidents. The statements are related to the toxicity of the pesticide product (signal word) and the route or routes of entry which must be particularly protected. “Do not breathe vapors or spray mist” and “avoid contact with skin or clothing” are common specific action statements which help prevent pesticide poisoning.

**Protective Clothing and Equipment Statements** are listed on many pesticides and should be followed closely. Long-sleeved shirts, long-legged trousers, and gloves should be worn when applying all pesticides, even if the label doesn’t contain a protective clothing statement.

**Statement of Practical Treatment** gives the recommended first aid treatment in case of accidental poisoning. All DANGER and some WARNING and CAUTION