

Understanding Pesticide Labels

Edwin R. Duke and Samuel E. Hand, Jr.



FLORIDA A&M UNIVERSITY
**COOPERATIVE
EXTENSION**
COLLEGE OF AGRICULTURE AND FOOD SCIENCES

Introduction

Every pesticide, whether organic or synthetic, sold in the United States comes with a pesticide label. That label is a legal document detailing the expectations on you for the safe, proper and legal use of the pesticide. The purchaser and/or applicator is assuming certain responsibilities when deciding to use a pesticide. Using a pesticide in a way that is inconsistent with its label is a violation of the Federal Insecticide, Fungicide, and Rodenticide Act of 1996 (FIFRA).

The pesticide label is the best guide to a using pesticide safely and effectively. The directions on the label are there primarily to help achieve maximum benefits – the control of the pest – with minimum risk. Both depend on following label directions and correctly using the pesticide. Read the label before buying the pesticide. *Using pesticides in any way that does not comply with the label's directions and precautions is illegal.*

Brand Name and Active Ingredient(s)

Pesticide manufacturers are required by law to provide certain information on the label. Each label will show the **brand name** or trade name of the product. The brand name is designed so that the product is easily recognized and remembered. **Active ingredients** are the chemicals in the pesticide that control the target pest. Products with the same active ingredient may have completely different brand names, therefore the label also must show the active ingredient. The percentage or amount of active ingredient by weight must be stated. Inert (non-active) ingredients are not required to be listed individually or identified by name.

EPA Registration

All pesticide products must be registered with the Environmental Protection Agency (EPA), and each is given a unique registration number. This number indicates that the EPA has reviewed the product and determined that it can be used with minimal or low risk if directions are followed.

Manufacturer

The name, address and contact information of the manufacturer or formulator of the product must be on the label.

Signal Words

The signal words – CAUTION, WARNING, or DANGER – indicate the acute (short-term) toxicity of the product to humans. The statement “keep out of reach of children” must also appear with signal words on the label of all pesticides.

- CAUTION means the product is slightly toxic if eaten, absorbed through the skin, inhaled, or causes slight eye or skin irritation.
- WARNING indicates the pesticide product is moderately toxic if eaten, absorbed through the skin, inhaled, or causes moderate eye or skin irritation.
- DANGER means that the pesticide product is highly toxic by at least one route of exposure. This signal word is accompanied by a skull and crossbones.

Restricted Use Pesticide Statement

This statement appears if the product is a restricted use pesticide. This determination is usually based on the product's individual human toxicity or on chemical properties that may impact the

Edwin R. Duke, Associate Professor, College of Agriculture and Food Sciences; FAMU Cooperative Extension, Tallahassee, FL 32307. Samuel E. Hand, Jr., Associate Professor and Director of Industry Credentialing Training Programs, FAMU Cooperative Extension, Tallahassee, FL 32307.

The Florida A&M University Cooperative Extension Program is an equal employment/ educational opportunity access organization that provides research-based educational information and services only to eligible individuals and institutions regardless of race, color, national origin, religion, gender, age, disability, martial or veteran status.

environment. Most pesticides labeled with the signal word 'Danger' are restricted use pesticides. These pesticides only may be purchased and used by individuals having a pesticide license. Pesticides without this statement are considered general use pesticides and do not require a license for purchase and use. Please note that, in Florida and most other states, anyone applying a pesticide, whether restricted or general use, as a part of their employment must have a pesticide license or work under the direct supervision of someone possessing a license.

Precautionary Statements

This section contains information about potential hazards related to the product's use, including risks to people, domestic animals, other non-target organisms, wildlife, and the environment. This section also may spell out any physical or chemical hazards like fire or explosion risks that the particular product may pose.

The type of personal protective equipment (PPE) that must be used with a particular pesticide can be found here. Shirts with long sleeves, long pants, and closed-toed shoes should be worn when applying any pesticides, even if the label doesn't contain a protective clothing statement. Other protective equipment may include, but is not limited to goggles, gloves, and respirators.

The label may specify how long someone without appropriate PPE must wait before re-entering a treated area. If no re-entry period is specified, the rule is that liquid sprays must have dried and dusts must have settled. If the chemical is to be applied to an edible crop for humans or animals, the label also may specify the pre-harvest interval. This is the least amount of time that must elapse between the last application and the harvest of the crop.

A section on first aid may be included in this part of the label. This statement gives the procedures that must be taken following an accidental exposure (oral, dermal, inhalation or eye) to the product. This information should be read and understood before

use of the product and should be relayed to medical personnel responding to an emergency.

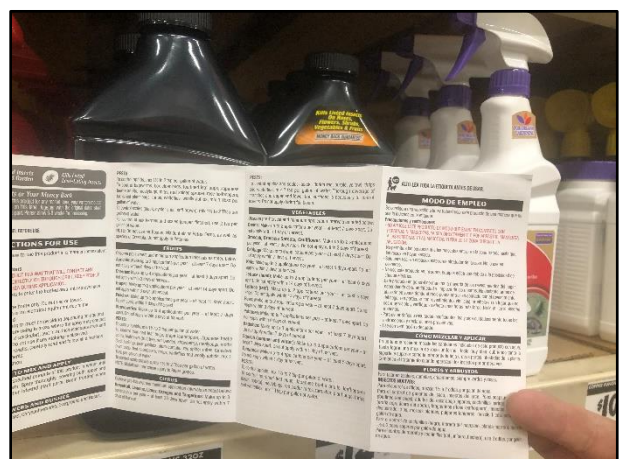
Storage and disposal instructions for the pesticide and its container are specified on the label. Chemicals can lose their effectiveness over time. It is very important that chemicals should be stored in the original labeled container in which it was purchased. Any remaining unused chemical should not be stored in the applicator container. Only the amount of chemical that is necessary for a specific job should be prepared at any one time.

Directions for Use

This portion of the label gives instructions on how to properly use the product. Mixing instructions, compatibility with other products, timing, frequency of application, and proper application methods and equipment are all spelled out in this portion of the label.

Conclusion

Always read the label directions before purchasing a pesticide. Let the label guide your purchase decision. Reading and following label directions is part of good pesticide use. It protects human health, pollinators, wildlife, and the environment. Most importantly, it is the law.



Reading the pesticide label can help with the decision on which pesticide to buy.