

"ONCE AGAIN IN ENGLISH, PLEASE"

-- or --

Understanding Pesticide Labels

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If you have read any of the past newsletters, you already know that I am a big advocate of integrated pest management (IPM). This does not mean that I shun all chemicals though. In fact, the IPM philosophy advocates selective use of pesticides at appropriate times and in appropriate amounts. With the insect and fungal disease season upon us, now is the time we begin reaching for our chemical arsenals.

There are five times when you should read the label on a pesticide container:

1. When choosing a product
2. Before mixing and applying
3. Before storing
4. Before disposing of the container
5. Emergencies (such as spills)

The label is a *legal document*, placed on the pesticide container for your information, protection, and the protection of the environment. If you do not follow the instructions provided on the label, you are breaking the law!

Each label must contain a brand name, ingredient statement, formulation (granular, wettable powder, etc.), the manufacturer's name and address, EPA registration number, precautionary statements (protective clothing and equipment required), a signal word (CAUTION, WARNING, DANGER-POISON), classification, first aid instructions, storage and disposal

instructions, and finally, directions for mixing and applying.

Here are a few vocabulary words that will help when reading a label:

Active ingredient - The part of the pesticide that will kill the pest (or prevent damage by one).

Acute toxicity - Toxicity to man or animal after a single dose or exposure.

Broad spectrum pesticide - Toxic to a wide range of pests.

Caution - Signal word that warns that the pesticide is slightly toxic to humans

Chronic toxicity - Toxicity to man or animal after repeated doses over a long period of time.

Danger-Poison - Signal word that warns that the pesticide is extremely toxic to humans; usually accompanied by a skull and cross bones. Pesticides with this label are restricted to use by certified applicators only.

Dose-dosage - Amount of pesticide mixture applied to the target pest.

Emulsifiable concentrate - Large amount of active ingredient dissolved in liquid.

Flowable - Very fine solid mixed in liquid.

Formulation - Pesticide(s) + material needed to make it safe to store, dilute, and apply; how it is bought.

Fungicide - Pesticide used to control/prevent fungi that cause plant disease.

Growth regulator - Increases, decreases, or changes normal growth or reproduction of a plant.

Herbicide - Pesticide used to control unwanted plants.

Insecticide - Pesticide used to control/prevent damage by insects.

LC₅₀ - Lethal concentration *in air* that kills ½ of the test animals exposed (*lower number = more poisonous*).

LD₅₀ - Lethal dose eaten or absorbed that kills ½ of the test animals exposed (*lower number = more poisonous*).

Miticide - Pesticide used to control mites.

MSDS - Material safety data sheet; additional information supplemental to the label

Nematicide - Pesticide used to control nematodes.

Non-selective pesticide - Controls a wide range of pests.

Ovicidal action - Destruction of both the insect and egg (*i.e. horticultural oils*).

Penetrant - Additive or adjuvant that aids pesticides through the outer surface of a leaf, root or skin of the pest.

Pest - Any animal, plant, insect, fungi, etc. that is living where we don't want it to.

Residual pesticide - Keeps working a long time after actual application (*days, weeks, months depending on the pesticide*).

Restricted use pesticide - Can be applied only by or under the direct supervision of a certified pesticide applicator.

Risk = toxicity x exposure

Rodenticide - Pesticide used to control rodents.

Selective pesticide - Controls only a few pests; not harmful to others. (*Also known as a specific pesticide.*)

Short term pesticide - Breaks down into non-toxic by-products immediately after application.

Soluble powder - Finely ground solid that is dissolved into a liquid (*usually water*) to be applied.

Spreader-sticker - Additive that make droplets of pesticide spread and stick better, making it more effective.

Systemic - Taken up in one part of plant/animal and moved to another where it attacks the pest.

Toxicity - "How poisonous" to living organisms.

Warning - Signal word that warns that the pesticide is moderately toxic to humans

Wettable powder - Powder mixed with water to be applied. The powder forms a suspension rather than dissolving.

Remember, the most important single statement in pest control is: **ALWAYS READ AND FOLLOW THE LABEL DIRECTIONS!**