

THE LABEL IS THE LAW

This is a CEU article.

By Ryan Atwood
and Stephen H. Futch

“The label is the law.” How many times have you heard this in your career in agriculture? Probably quite a lot.

We often like to quote that saying, but we sometimes forget that new agriculture workers don't have a lot of experience with pesticide labels. To a new pesticide applicator, the label can seem somewhat busy or confusing. Taking the time to instruct new employees on how to properly read a label is an excellent idea. Additionally, it is helpful to review pesticide labels periodically (especially for frequently used products) with your employees during regularly scheduled meetings.

All pesticides that are sold are required to be labeled and have a label attached to the pesticide container. Manufacturers spend millions of dollars to properly label their pesticides. These labels provide necessary information for safe and effective use of their products.

When working with pesticides, the label may be lost, damaged or misplaced, requiring you to obtain an additional copy. A good resource for pesticide labels is at <http://www.cdms.net/LabelsMsds/LMDefault.aspx?t=on the Web>.

Here you can find up-to-date labels and material safety data sheets (often referred to just as MSDS sheets). Supplement and special-use labels are available on the site as well. If you do not have access to the Internet, your local county agent can print off a copy for you.

The first page of the label contains all sorts of valuable information concerning the pesticide. Here you will see “Restricted Use” on the page if the product requires a pesticide license for its purchase and supervision of application. If the product does not contain the phrase ‘restricted use’ on the front page, it is available to the general public to use (unlicensed individuals).

Also included on the front page will be the signal word, either Caution, Warning or Danger. These signal words

give you insight as to how poisonous a chemical can be if used improperly or if an accident occurs. Caution implies slightly toxic, while Warning implies moderately toxic and Danger implies extremely toxic. Products with Danger and the skull and crossbones printed in red are highly toxic.

Also included in the label will be first aid information and what actions should be taken if the material has been inhaled, swallowed, has gotten on the skin or in the eyes. It is good to familiarize yourself with these procedures before using the pesticide to prevent any possible problems.

Recently on newer labels is a number associated with pesticide groups. Pesticide group numbers are a tool to try to prevent any type of insect resistance to similar materials. Different pesticides may have the same mode of

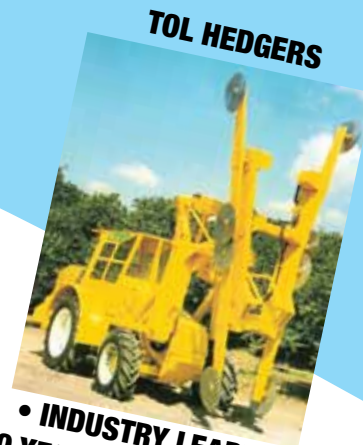


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action (which means they act similarly) which is represented by a common number. For instance Danitol, which is manufactured by Valent (manufacturer's name and address also found on front of label), and Mustang Max, which is manufactured by FMC, are both synthetic pyrethroids and belong to pesticide group 3. A successful rotation of products would be alternating pesticides that have differing pesticide group numbers. In the case of Danitol and Mustang Max, using these products back to back would not prevent resistance buildup when used in back-to-back applications.

One of the most important pieces of information for the pesticide applicator is the type of personal protection equipment (PPE) that is required when handling and applying pesticides or in cleaning up equipment or pesticide spills. Keep in mind that differing amounts of PPE can be required for handlers versus applicators. For example, an apron may be required while mixing a pesticide and not required when applying it. Some materials may even require special equipment, such as the use of an enclosed cab-tractor with special air filtration.

All information pertaining to requirements in properly using the pesticide will be found in the label. Remember that pesticides are only hazardous when toxicity is combined with exposure; if you wear the proper PPE, you will eliminate the exposure to pesticides.

Other information found on the label, which is necessary for proper application, include: what crops the pesticide can be applied on; application rates; and, under what environmental conditions (such as wind speed) products may be applied. Crop and rate information usually contains the type of targeted pest that the material will control. It will also give the re-entry time, which is the time that one should stay out of the treated area unless wearing the appropriate PPE. Additionally, the label will give a postharvest interval (PHI) that is the required time that must pass before harvesting a crop. Sometimes the time of application before a harvest date is restricted.

Not reading and following all of the directions for use can cause problems in timing of agricultural operations. These are just some of many reasons why taking the time to review your pesticide labels is important and has the potential to really pay off.

Information on how to properly

One of the most important pieces of information for the pesticide applicator is the type of personal protection equipment (PPE) that is required when handling or applying pesticides or in cleaning up equipment or pesticide spills.

store and dispose of the pesticide will usually be located on the second page of the label. An emergency phone number, in cases where spills may have occurred, is typically listed in this area as well. If the product is allowed to be used through irrigation systems (chemigation), directions for proper use will be given.

Some products have restrictions on what type of applicator method can be used, such as aerial, ground, low volume, etc. Some pesticides may have requirements on spray particle size and/or may require certain buffer zones for different types of applications. Many times, pesticides cannot be sprayed around aquatic areas or other crops unless following a certain setback distance. Often there are required environmental conditions associated with the proper use of a pesticide; they may differ depending on the type of application equipment that you are using. Typically some type of warning will be expressed if the pesticide is toxic to fish or aquatic organisms.

Labels may contain specific state information about special requirements that individual states may have for proper and safe application under local conditions. Information concerning tank mixing (using multiple products together) may also be listed, although it is a good rule of thumb to always do a jar test to see how multiple materials may interact before using a new tank mixture.

All of this information can be found in the label, and since the label is the law, the applicator must fully follow the instructions of the label. Ignorance is not an acceptable excuse because all the requirements for proper application can be found on the label, and as they always say, "The label is the law!"

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“The label is the law” test

To receive one Core continuing education unit (CEU), read “*The label is the law*” on page 25. Answer the questions and email or mail the answers and applicator form to the senior author. The article and test set will be valid for up to one year from the publication date. After one year, the article can no longer grant CEUs.

1. All pesticides that are sold are required to be _____.
2. _____ refers to when pesticides are used through irrigation system.
3. Sometimes _____ contain specific state information about special _____ that individual _____ may have to qualify for proper use.
4. Restricted Use on the label means the product requires a _____ for its purchase and supervision.
5. Sometimes the label may be _____, _____ or _____ which would require you to get an additional copy.
6. On newer labels, a number indicates pesticide _____ to help minimize pesticide resistance.
7. _____ is the time that one should stay out of the treated area unless wearing the appropriate _____.
8. Some products have restrictions on what type of application can be used, either _____, _____, _____ or _____.
9. Not knowing that you are improperly using the _____ is not an acceptable _____ because all the requirements for proper _____ are found on the _____.
10. Also included on the front page will be the signal word either _____ or _____.
11. Material safety data sheets are often referred to just as _____.
12. Certain pesticides may have requirements on _____ and require certain _____ for different types of applications.
13. Not reading all of the _____ for _____ can cause problems in timing of agricultural _____.
14. Information found on the label, which is necessary for proper application, include _____ which pesticide can be applied on, at what _____ and under what _____.
15. Information concerning _____ will sometimes be listed, although it is a good rule of thumb to always do a jar test to see how two materials may _____ before using a new tank mixture.
16. When in doubt, refer to the _____ because it contains everything you need to know to ensure proper safety and application for the particular pesticide of interest.
17. Pesticide classification numbers associated with pesticides help an applicator prevent _____.
18. _____ are a good way to quickly determine the toxicity of a pesticide.
19. Label is the _____!

Pesticide Applicator Form

First Name: _____ Last Name: _____

Email: _____

Pesticide License Number _____

Address _____

City _____ State _____ Zip: _____

Phone Number: _____

Please mail the answer sheet and form to:

Lake County Extension Office, Attention: Ryan Atwood, 1951 Woodlea Road, Tavares, FL 32787

For questions regarding this test, please contact Ryan Atwood at (352) 343-4101 or by email at raatwood@ufl.edu



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