

Understanding Herbicide Labels: It's Important to You, Your Family and the Environment

By Laura L Whatley, Ph.D., the Weed Science Society of America

So you've put away your hoe and selected an herbicide to kill those pesky weeds. Before you dive in and start spraying, pause to read the label. Doing so is vital if you want to control your weeds successfully and protect yourself, your family and the environment.

The label may seem formidable at first glance, but it's very important to read thoroughly. It contains legally binding information – approved by the Environmental Protection Agency – on how much product to use for optimal weed control, how to handle the product safely, and when, where and how it should be applied.

Each label contains the following information:

Signal Words

The most prominent word on any herbicide package is the "signal word" – a ready indicator of the potential hazard the chemical can pose to humans unless used as instructed. "Danger" is the signal word for especially toxic chemicals, followed by "Warning" for those representing an intermediate level of risk and "Caution" for those with the lowest level of toxicity. Even if the product has a low potential to cause harm, it is essential that you follow all label directions.

Precautionary Statements

Don't be lulled into a false sense of security. Follow all precautionary instructions precisely. Many labels include directions for the type of clothing and other protective gear needed when mixing and spraying. You might also be instructed to avoid contact with eyes, skin or clothing or to wash thoroughly with soap and water after handling the product.

First Aid

Look at this section of the label for practical advice on what to do if you accidentally ingest or inhale the product or get it in your eyes or on your skin. You might be instructed to call 911, contact a poison control center or call your doctor.

Directions for Use

The first sentence in this section of the label is required by the EPA: "It is a violation of federal law to use this product in a manner inconsistent with its labeling." Read and heed! Pay special

attention to any instructions on how to protect people, pets, property and the environment. For example, liquid products applied to lawns may require that people and animals be kept away until the spray has dried. Some products may stain sidewalks or driveways, so follow the instructions to avoid discoloration.

Because herbicides are designed to kill plants, the label may advise that you avoid application near desirable plants. It will also indicate suitable weather conditions and what equipment you should use when you apply the herbicide you've chosen.

If you've bought a concentrated product that needs to be mixed with water before application, the directions will tell you to calculate how much herbicide you'll need for a given area or for spot treatments. If you're scratching your head about how to do that, there are some very good online resources to help. Here are three examples:

- Purdue University Cooperative Extension Service: <u>http://www.btny.purdue.edu/Pubs/PPP/PPP39.html</u>
- University of Missouri Extension Service: <u>http://extension.missouri.edu/explore/envqual/wq0551.htm</u>
- The Pesticide Environmental Stewardship (PES) Website: <u>http://pesticidestewardship.org/homeowner/Pages/CalculatingtheCorrectAmount.aspx</u>

Note that many products mixed with water cannot be stored for extended periods because they significantly degrade over time. Prepare only what you need.

Storage

As every gardener knows, weeds have a bad habit of coming back. So before you settle into a lounge chair and wait for your weeds to die, be sure to follow the instructions on how to store unused product for future use.

Disposal

Disposing of the container as instructed by the label is the final step in using herbicides responsibly. Some containers can be wrapped in newspaper and put in the trash – but not all. Read carefully. To dispose of leftover product, contact city or county officials about local "disposal day" events or visit a disposal site in your community that accepts pesticides.

Laura L Whatley is a senior registration scientist with BASF Corporation and a member of the Weed Science Society of America.