



## Risk Control

# Vegetation Management



The use of substances such as pesticides is generally considered an important part of an overall vegetation management program. However, users must also have a thorough understanding of the hazards they pose to humans, animals and the environment. This guide provides valuable risk management recommendations to help ensure proper and safe use of vegetation management chemicals.

### Pesticides

Pesticides are chemicals used to control or repel pests, and include herbicides, insecticides, rodenticides and fungicides, among others. According to the Environmental Protection Agency (EPA), a pesticide is any substance or mixture of substances intended for:

- Preventing, destroying, repelling or mitigating any pest
- Use as a plant regulator, defoliant or desiccant.
- Use as a nitrogen stabilizer.

An herbicide is a chemical substance used to control or manage undesirable vegetation, especially weeds and grass. Selective herbicides kill specific unwanted vegetation while leaving desirable vegetation unharmed. A non-selective herbicide will kill any type of plant species, such as glyphosate, which is applied directly on vegetation. The most-used application for glyphosate herbicide is in agriculture (soybeans, sugar beets, corn, wheat) but it is also used to control vegetation in forestry and grasslands, pasture applications, and in non-agriculture areas including driveways, sidewalks, industrial complexes, and stretches of land along right of ways, railways and roads. Glyphosate is also used by homeowners and professional landscapers for broadcast and spot treatment on home lawns and gardens, as well as parks and golf courses. According to the EPA, glyphosate is the most widely applied herbicide in the U.S.

### Safe Usage Considerations

Pesticides can be an important part of vegetation management when used properly. Safe handling, mixing and applying these products must coincide with the knowledge and understanding of the hazards they pose. As a precaution:

- Always read the pesticide label completely before opening the container.
- Note all the proper personal protective equipment (PPE) listed prior to opening the container.

Only mix or use the amount necessary for the area to be applied, and do not dump excess onto vegetation or into drains. Dispose in accordance with label requirements.

- Store chemicals, equipment and mixing containers with proper labeling in original containers.
- Review label instructions pertaining to re-entry times, or the amount of time from application, until it is safe to enter the area without protective clothing or equipment.

### Routes of Exposure

Within the pesticide industry, the definition of "exposure" means getting a pesticide on the skin or in the body. There are four ways a substance can enter the body:

- Dermally (on the skin)
- Inhalation (breathing in through nose or mouth)
- Ocularly (entering through eye via spray/mist)
- Orally (swallowing)

The length of time the body is exposed, the amount of chemical to which the body is exposed, and the toxicity of the chemical will all determine the seriousness of the hazard.

### Personal Protective Equipment (PPE)

All pesticide labels must include instructions about proper PPE to be worn, but not all PPE will be the same for every pesticide. Therefore, it is recommended that the label and safety data sheet for each chemical be reviewed to identify the types of PPE required. The following list contains some commonly recommended PPE items:

- Long sleeve shirt
- Long pants that reach the shoes
- Shoes, preferably chemical-resistant shoes or boots
- Chemical-resistant gloves
- Respirator
- Goggles
- Face shield
- Dust mask for powder products or granular dust
- Chemical-proof apron when mixing chemicals

### The Most Important Thing to Remember

PPE, clothing, gloves, shoes and other protective items will work only if the chemicals remain on the outside of the material. If you allow it to get on the inside due to a spill, splashing or careless work, the protective clothing could end up working against you. When this happens, it can hold the chemical against the skin. Change any clothing that is no longer doing what it was originally intended to do.

### Additional Resource

[EPA: Chemicals, Pesticides and Toxics](#)

To learn more about how to manage risk and increase efficiency, visit [cna.com/riskcontrol](https://cna.com/riskcontrol).