

# Pesticides

## Pesticides - Working Safely

### On this page

[How do I work safely with pesticides?](#)

[What should I remember when mixing pesticides?](#)

[What should I know when applying pesticides?](#)

[What are more tips for personal safety?](#)

[How do I store pesticides?](#)

[How do I clean up pesticide spills?](#)

---

## How do I work safely with pesticides?

The importance of working safely with or near pesticides cannot be over emphasized. Always read the label and follow the directions. Always follow **all** of the safety instructions. Many incidents occur when pesticides are being mixed or prepared for use.

### DO

- Use the right pesticide for the job. Make sure the label lists the pest you wish to control.
- Select the least hazardous pesticide that will still be effective.
- Always wear the appropriate personal protective equipment (PPE) as recommended on the label, Safety Data Sheet (SDS) or product fact sheet. PPE may include coveralls, long pants, long sleeved shirts, gloves, boots, goggles, face shield, hat, or a respirator.
- Always read the label. Keep the label "intact" and make sure it is readable.
- Keep the pesticide in its original container. If you must pour the pesticide in a new container, clearly label any new container holding the pesticide. Do not transfer pesticides to cups, bowls or any other container that may be confused with containers for drinking or eating.
- Clean up spills immediately and dispose of the waste according to directions on the label.
- Dispose of empty containers according to directions on the label.

### DO NOT

- Do not use products for uses other than what they are intended for.
- Do not use more pesticide than is recommended (twice the product will not have more effect).
- Never burn pesticides or pour them down a drain.

NOTE: The term "pesticide" describes a very large and diverse group of chemicals or products. It is very important to always get specific information about the exact product you are using.

For more information, other OSH Answers documents in this series include:

- [Pesticides - First Aid](#)
- [Pesticides - General](#)
- [Pesticides - Labels](#)
- [Pesticides - Health Effects](#)
- [Pesticides - Re-Entry Time](#)

---

## What should I remember when mixing pesticides?

### DO

- Be sure there is good ventilation and lighting in the area where you are mixing the pesticide.
- Always mix the pesticide at the recommended rate and amounts. Do not "guess" with the measurements.
- Calculate how much product you will need ahead of time so you don't make too much. Apply the minimum amount of pesticide that is effective.
- Keep the container below your eye level to help avoid splashing or spilling the pesticide into your eyes and face.
- Many spray pesticides are flammable. Be sure to follow the instructions carefully.
- Have a knife or scissors that are used ONLY for opening pesticide bags.

### DO NOT

- Do not create dusts or splashes when opening a container or pouring liquids. Do not tear bags open.
- Do not use the same knife or scissors to open the pesticide bags that you use with food.

# What should I know when applying pesticides?

## DO

- Keep equipment in good working order. For example: do not use sprayers with leaking hoses or loose connections.
- Use the right sprayer equipment (calibrated droplet size/nozzle) that produces required spray quality and minimizes drifting.
- Post signs in areas where pesticides are going to be applied, and when re-entry is recommended.
- Schedule applications when other workers are least likely to be exposed - after hours or when people are not present - at the end of the day, or weekends.
- Always apply the pesticide at the recommended time and under favourable weather conditions (recommended: If possible, spray with a crosswind, a light wind greater than 1-2 km/h, and with the temperature lower than 25°C and humidity higher than 40%).
- Make sure the spray blows away from you or anyone else.
- Minimize drift by reducing the distance between the nozzle and the target area. Use the type of nozzle that gives the largest but still effective droplet size.
- Provide temporary extra ventilation, where necessary, to remove pesticide vapour or aerosol when spraying indoors.
- After applying, keep away until the pesticide has dried or until the "re-entry" time indicated on the label has passed.
- Always follow the recommended waiting time between pesticide application and the harvest (picking or eating) of fruits or vegetables.
- Clearly label treated surfaces where pesticide residues may remain.
- After spraying, all surfaces that may be in contact with food must be washed and rinsed with water before re-use.

## DO NOT

- Do not use your mouth to siphon liquids from containers or to blow out clogged lines, nozzles, etc.
- Do not mix, spray, or dust "into" the wind.
- Be careful when working or spraying near other people, livestock, other crops or when near streams, ponds, lakes and other bodies of water. Pesticides can easily run off or drift into other areas.
- Do not spray near other people, pets/animals, children's toys, food, dining dishes, etc.

- Never spray on a very windy or a very calm day. When there is no wind the finer droplets may remain suspended in the air until the wind picks up and they may be transported somewhere else.
  - Never place rodent or insect baits and traps where children or pets can reach them.
- 

## What are more tips for personal safety?

### DO

- Use the "buddy system" if working with highly toxic pesticides. Work with another person so they can watch for signs of any health effects.
- Wash your hands and face after working with the pesticide. Always wash before eating or smoking, before leaving for the day, or after using the toilet.
- Change your clothes after applying the pesticide. Wash your clothes in a separate load before wearing them again. Run an empty "rinse cycle" before washing other clothing.
- Leather boots, shoes, belts, watch bands or jackets splashed with pesticides cannot be decontaminated and must be discarded.

### DO NOT

- Do not breathe in sprays or dusts.
  - Do not eat, smoke or drink around pesticides.
- 

## How do I store pesticides?

Each pesticide will have specific storage instructions. Remember that many pesticides may contain ingredients ("inert" ingredients) that will have their own hazards.

This checklist is one that you can modify for your specific needs and the exact pesticides you work with.

## Checklist

### In general

Before you purchase pesticides, be sure that you know exactly what pest you wish to control, and that you have bought the right product for the job. The best way to store pesticides is to not have to store it at all. Only buy the amount you need for that application or for the season.

### DO

Read the pesticide label and SDS and follow all storage instructions. Be sure that people, especially children, cannot unintentionally access the pesticides.

### Storage areas should: (cabinet, room, or shed that is used only to store pesticides)

be locked.

have warning signs posted on the outside of all walls and on the door.

be dry and well-ventilated.

be temperature controlled (pesticides should not freeze nor be exposed to extreme heat).

have a smooth cement floor (no cracks or crevices or floor drains) with curbs to contain spills, and be painted with a hard sealer to help make clean-up easier.

be made of fire-resistant materials. "Dry-wall" interiors are preferable to wood panelling.

have shelves made of materials that do not absorb pesticides (e.g., metal).

be located away from areas where flooding may occur.

be located away from areas where the soil is highly permeable.

### Containers

Store the pesticide in its original container. Protect the labels so they remain readable.

Tightly seal all containers. Partially empty paper containers should be sealed with tape or staples.

Be sure the containers have no leaks, tears, or defects (e.g., loose lids). Examine containers occasionally for leaks or tears.

Store pesticides upright and off the floor.

Store flammable and combustible materials in a separate section, away from heating systems and any possible source of flame.

Store empty containers and material that has a leak or spilt in the container inside a "waste bin" in the storage building until final disposal.

	Dispose of empty containers, or expired or surplus pesticides according to the directions on the label.
<b>Pesticide management</b>	
	Keep the amount of pesticide stock in storage to a minimum.
	Take out only the amount of pesticide needed for that day. At the end of day, return unused pesticide and empty containers to the storage building.
	Store large quantities of herbicides in a separate building or area from other pesticides. Many herbicides are volatile (evaporate rapidly) and can contaminate other pesticides.
	Keep an inventory of the quantity, type and age of the pesticides in storage. Keep this list up-to-date, readily available, and away from the storage site.
	Keep SDSs, technical bulletins, product labels and other information up-to-date and readily available. Do not keep these records in the storage area itself.
<b>Other</b>	
	Store your personal protective clothing and equipment in a separate, clean area (outside the shed or room).
	Keep a first aid kit and spill clean-up equipment located outside or near the storage area.
	Have fire extinguishers, eyewash stations and other appropriate emergency equipment nearby. Keep access clear to this equipment and test it regularly (at least annually).
	Post emergency phone numbers nearby.
	Keep emergency response equipment near but not in the storage facility.
<b>DO NOT</b>	
	Do not store near food, utensils, animal feed, seeds or water.
	If you must put the pesticide in a new container, do not transfer to cups, bowls or other containers that may be confused for food, drink, feed or medicine containers. Label the new container clearly.

## How do I clean up pesticide spills?

- Isolate the spill area and ventilate if indoors.
- Wear the correct personal protective equipment - unauthorized people and those without protection should be kept out of the spill area.
- Use an absorptive material for liquid spills such as activated charcoal, or vermiculite.

- After a spill has been absorbed, the contaminated area should be scrubbed with a bleach and detergent mixture at least two times.
- For specific clean up and disposal information, read the SDS. Contact the pesticide manufacturer if you need more information.

(Adapted from: WorkSafe Alberta - Using pesticides safely)

---

Fact sheet last revised: 2023-01-20

## **Disclaimer**

Although every effort is made to ensure the accuracy, currency and completeness of the information, CCOHS does not guarantee, warrant, represent or undertake that the information provided is correct, accurate or current. CCOHS is not liable for any loss, claim, or demand arising directly or indirectly from any use or reliance upon the information.