

PESTICIDES

Safe practices and personal protective equipment (PPE)

● DS-1004

You use pesticides to control harmful pests and ensure you get a good crop? Take care! Pesticides can be harmful to your health and to that of others nearby. A good deal of caution is required when using pesticides.

This fact sheet will help you understand pesticide labels, so you can protect yourself better.

HEALTH EFFECTS

On a farm, the risk of absorbing pesticides during pesticide spraying or spills is very real. However, there are many work situations when small quantities of pesticide can be absorbed on a regular basis without you even realizing it.

Farmers are thus more susceptible than the general population to developing certain types of cancer, including prostate cancer and leukemia. Elsewhere in the world, Parkinson's disease in farmers is recognized as an occupational disease caused by exposure to pesticides. Think about it!

It is important to understand that the effects of continuous exposure to herbicides, fungicide and insecticides at low doses may not be noticeable for many years.

The effects of occasional exposure to high doses vary, but irritation, vomiting and dizziness are often observed. Every year, more than a hundred farmers experiencing these symptoms contact [Québec's poison centre](#) (CAPQ, 1 800 463-5060). Don't hesitate to call if this happens to you.



MAKE
THE RIGHT
CHOICE

EXPOSURE ROUTES

The **skin** is the most common route of pesticide entry into the body.

Direct contact with pesticides when performing the following tasks

- Weighing/measuring commercial products
- Mixing/loading a sprayer
- Spraying
- Storing items where pesticides are kept

Indirect contact with contaminated equipment

- Outside surface of a sprayer or tractor
- Personal protective equipment
- Tractor cab
- Sprayer nozzles, etc.

Indirect contact with contaminated work areas

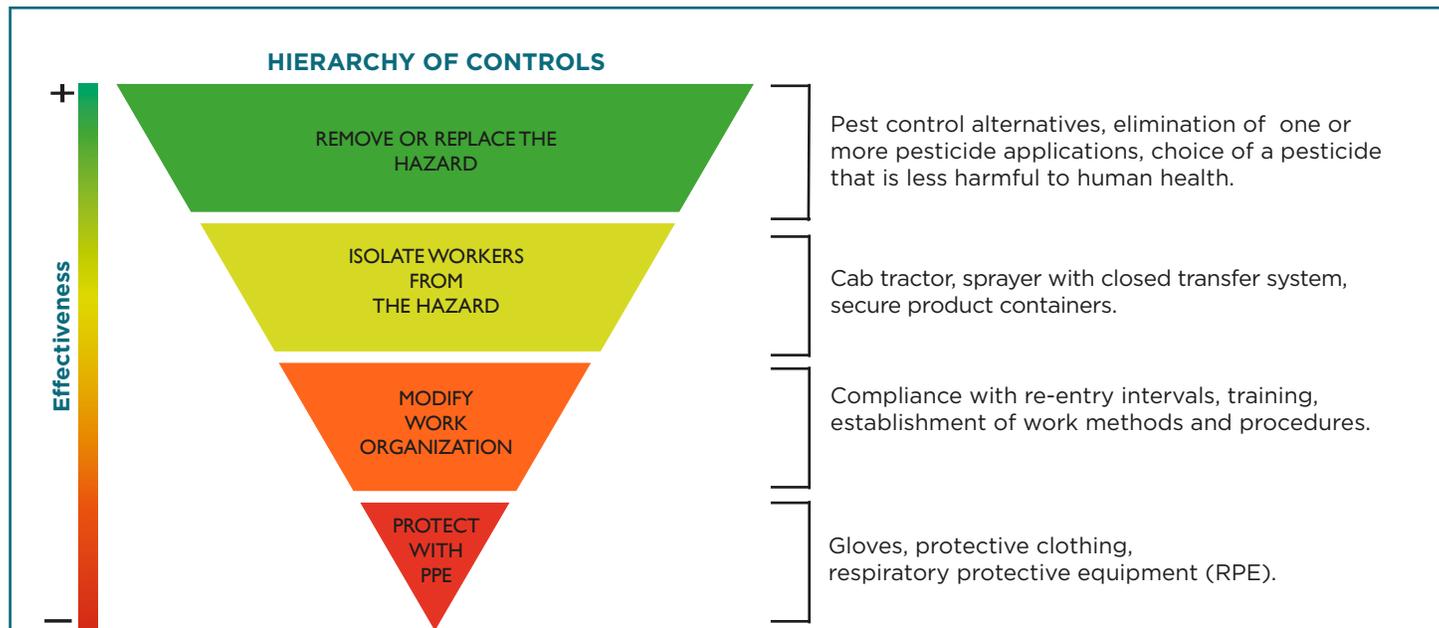
- Mixing/loading area
- Storage areas and buildings
- Fields (when weeding, monitoring, harvesting, etc.)

Ingestion is another possible route of exposure to pesticides (avoid smoking, eating or drinking when handling pesticides), as is inhalation (you can breathe in pesticides).

Stay healthy!
Use safe work
practices and
wear PPE for
protection.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Personal protection is the least effective method of reducing the risks of exposure (red section of the triangle). Even though you are required by regulation to use PPE, this should not stop you from applying other prevention strategies. Quite the contrary! You should consult not only the **label**, but also the **safety data sheet** for the product you are using to learn more about the hazards.



PROTECT YOUR AIRWAYS

Depending on the exposure scenario, the **Pest Management Regulatory Agency (PMRA)** recommends the following options:

- Respiratory protection not required
- A respirator with a NIOSH/MSHA/BHSE approved organic-vapour-removing cartridge with a prefilter approved for pesticides or a NIOSH/MSHA/BHSE approved canister for pesticides.

What you need to know

- In Québec, you may only use respiratory protective equipment (RPE) approved by the National Institute for Occupational Safety and Health (NIOSH), whether a half-face mask, a full-face mask or a helmet.
- Organic vapour cartridges/P100 (also called OV/P100) are suitable for almost all work involving pesticides. You can recognize them by their color: they are magenta and black.



- With helmet-type RPEs, use organic vapour/high-efficiency (OV/HE) canisters. These too are colour-coded magenta and black.

A few simple rules

- For effective protection, your full-face or half-face mask must fit your face, forming a tight seal. Fit tests of the seal between the facepiece and your face must be performed periodically. A user seal check must also be performed before each use of the mask.
- Helmets offer greater protection and superior thermal comfort. In addition, fit tests and seal checks are not required.
- Always use cartridges produced by the same manufacturer as your RPE. Never put a cartridge produced by one manufacturer on a mask produced by another.
- The service life of a cartridge depends on many factors. In the high season, cartridges must be changed at least once a week to ensure your safety. If you detect an odor when using your RPE, it's time to change the cartridges.
- Remove the cartridges from the RPE after use and put them in a reclosable plastic bag (Ziploc®, for example). Close the bag and store it in a cool place. Wash your RPE according to the manufacturer's instructions

PROTECTING YOUR BODY

Depending on the product and the severity of the risk, Health Canada's PMRA recommends three levels of body protection.

Severity of consequences of exposure		
Mild	Moderate	Serious
<p>Long sleeved shirt and long pants</p> 	<p>Coveralls over a long-sleeved shirt and long pants</p>  	<p>Chemical-resistant coveralls over a long-sleeved shirt and long pants</p>  

PMRA Recommendations

What you need to know

- No recommended garment offers 100% protection against pesticides.
- A long-sleeved shirt and long pants offer minimal protection. When spraying without a cab, or in case of repeated exposure, it is best to up your level of protection.
- The thicker or more closely woven the cotton or cotton/polyester of washable shirts, pants and coveralls, the better the protection they provide.
- **Coveralls** such as Tyvek®, Micromax®, Kleenguard® or equivalent disposable protective clothing can meet the PMRA recommendations. Read the instructions.
- **Chemical-resistant coveralls** such as Tychem®, Chemmax®, Kleenguard® or equivalent disposable protective clothing can meet the PMRA recommendations. Read the instructions.
- Disposable protective clothing is single-use clothing. Reusing such clothing can endanger your health.

A few simple rules

- At a minimum, wear the PPE recommended on the label of the product you are using.
- Skin is often contaminated when removing protective clothing. Take care!
- **When your work is completed**, remove shirt, pants or coveralls made of fabric and machine wash them separately in hot water. Do not use a fabric softener. When the wash is done, run a rinse cycle in the empty machine.
- Wear boots made of rubber only.
- Take a shower as soon as your work shift ends.

- **Discuss disposable coverall options with the supplier of your choice.**
- **Product labels recommend PPEs. They are there to protect you. Read them carefully.**

PROTECTING YOUR HANDS

Chemical-resistant gloves block passage of pesticides. They are generally at least 0.35 mm (14 mil) thick. Recommended materials, in order of efficacy, are laminate (several different layers of rubber), Viton®, butyl and nitrile.

WHAT YOU NEED TO KNOW

- Dishwashing gloves and disposable gloves are not thick enough to resist chemicals
- Gloves that are worn or have holes are not effective.
- Chemical-resistant gloves are not fabric-lined.
- Leather and fabric gloves are unacceptable.



A few simple rules

- Make sure your gloves completely cover your wrist and part of your forearm.
- Wash the gloves as often as necessary to prevent contamination of the inside of the gloves. Gloves contaminated on the inside expose you to pesticides instead of protecting you from them.
- When you apply pesticide in a cab tractor, store your clean gloves in a sealed box. If you must leave the cab, make sure there is a water tank available (if the sprayer doesn't have one) to rinse the gloves before you store them after use.
- Wash your hands after you remove your gloves.
- Like all PPE, clean gloves should not be stored in the same location as pesticides.



LEGISLATION

All pesticide users are subject to three laws:

- The federal [Pest Control Products Act](#) governing pesticide registration, including knowledge of and compliance with PPE recommendations on pesticide container labels.
- The Québec [Pesticides Act](#) governing the sale and use of pesticides. Regulations that apply to you governing use, storage and application of pesticides are found in the Pesticides Management Code.
- The [Act respecting occupational health and safety](#) designed to eliminate dangers to the health, safety and physical well-being of workers at the source. Under this law, employers must ensure that emissions of contaminants or use of dangerous substances do not adversely affect the health or safety of anyone at the workplace.

To learn more

Search product label:

<http://pr-rp.hc-sc.gc.ca/lr-re/index-eng.php>

Report a pesticide incident:

<https://www.canada.ca/en/health-canada/services/consumer-product-safety/pesticides-pest-management/public/protecting-your-health-environment/report-pesticide-incident.html>

Québec laws and regulations on the sale and use of pesticides:

http://www.mddelcc.gouv.qc.ca/pesticides/cadrelegal_en.htm

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RECAP

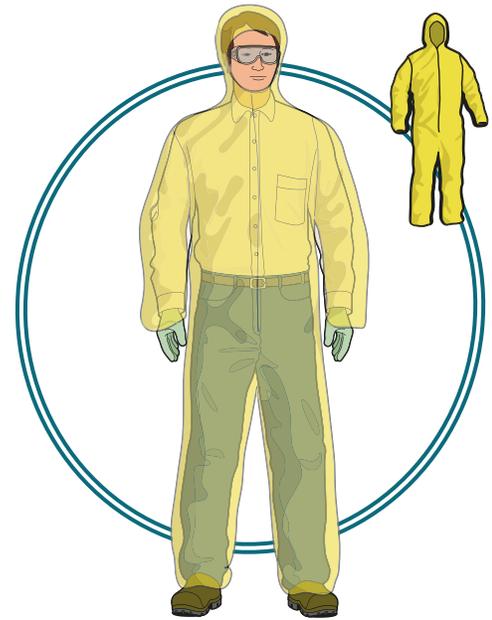
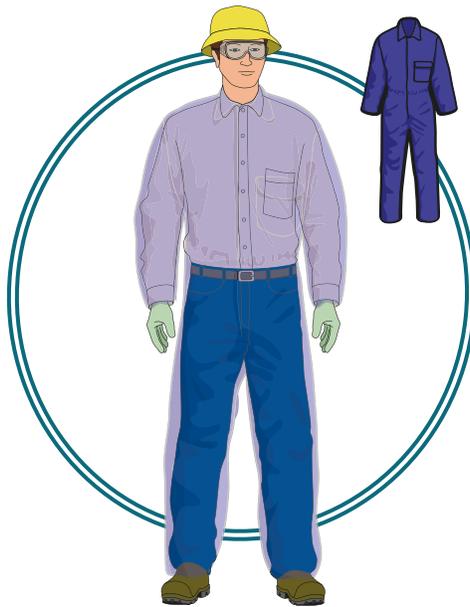
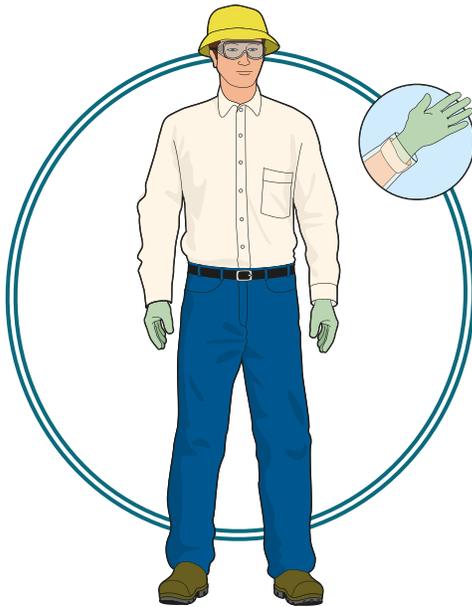


PESTICIDES

Safe practices
and personal protective equipment (PPE)

- Wear PPE recommended on labels
- Add more protection with additional PPE

SKIN PROTECTION



Protection

Chemical-resistant gloves
+
Long-sleeved shirt
+
Long pants
=
Basic protection

Basic protection
+
coverall
=
+ 75% protection

Basic protection
+
Chemical-resistant coverall
=
+ 90% protection

RESPIRATORY

For more
information,
check out the
awareness-raising
document
on our website

irsst.qc.ca/pesticides



Half-face mask



Full-face mask



Helmet



Protection