# Pesticide Safety for Farmer Assistants

### **Student Workbook**









#### The Pesticides Act and Regulation 63/09

For Class 2 and 3 pesticides, Assistants must work under the supervision of a Certified Farmer.

When you become an Assistant, there are certain jobs that your boss (a Certified Farmer) can ask you to do. You may:

- · get pesticides from the storage area
- · transport pesticides in a vehicle
- · measure and mix them
- · apply them

There are some jobs that <u>only</u> your boss (a Certified Farmer) can do. For Class 2 and 3 pesticides, <u>only</u> a Certified Farmer can:

- · choose and buy them
- · decide how much to measure, mix and apply
- · decide where and how to store and dispose of the pesticides or pesticide containers
- · calibrate application equipment
- apply any Class 2 pesticide inside a building if that pesticide produces a mist or fog or is an ultra low volume pesticide.

If you have an accident or a spill when you are working with a pesticide, tell your boss right away.

Your boss (a Certified Farmer) must tell you what to do.

Certified Farmers are responsible for all pesticide handling on the farm, including the pesticide work that you do as an Assistant.

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Ontario Ministry of Agriculture, Food and Rural Affairs

Ontario Vegetable Growers' Marketing Board

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Farmers use pesticides to kill insects, weeds, rodents and diseases on plants.

Pesticides can also hurt you, so protect yourself.



You shouldn't get sick from pesticides, if you handle them carefully, and you wear the right clothing and safety equipment.

Pesticide can hurt you, or people you work with if:

- they get in your eyes
- you breathe them in
- you get them in your mouth
- you swallow them
- they get on your skin.



Some pesticides can make you sick right away.



Some other pesticides can make you sick months or even years after you get them in you, or on your skin.

You might get sick with cancer, or have trouble with your liver, kidneys or nervous system.

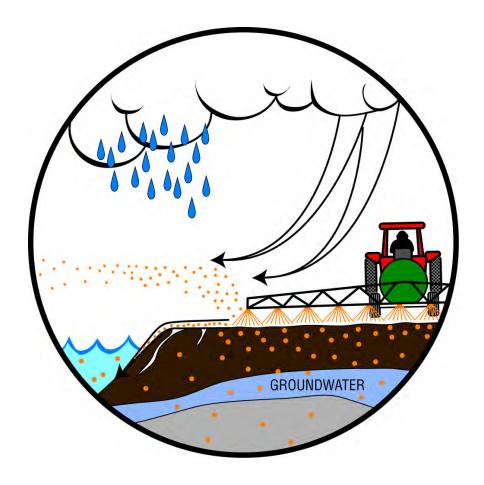


Pregnant women should not handle or use pesticides.

Some pesticides can harm the baby before it is born.



Pesticide can hurt people, animals and other crops, if they get into the air or water.



#### Pesticides in water are dangerous.

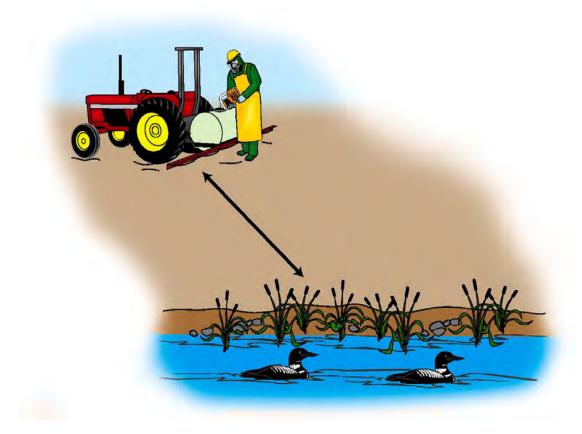
- They can get into the well water that everyone on your farm drinks.
- They can harm the water that the neighbours drink.
- They can kill fish, wildlife and livestock.





#### Pesticides can get into water if you:

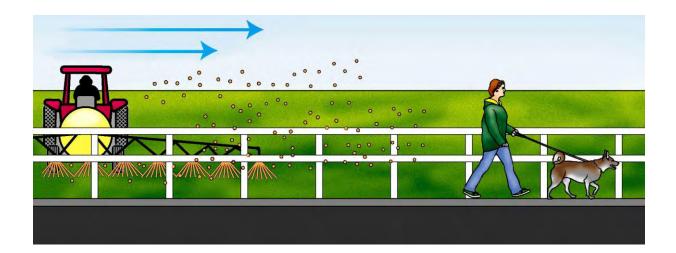
- spray too close to ponds, streams, ditches or wells.
- spray and it rains before the spray dries.
- spill them.
- overflow the spray thank when you are filling it
- wash equipment too near ponds, streams, ditches or wells.



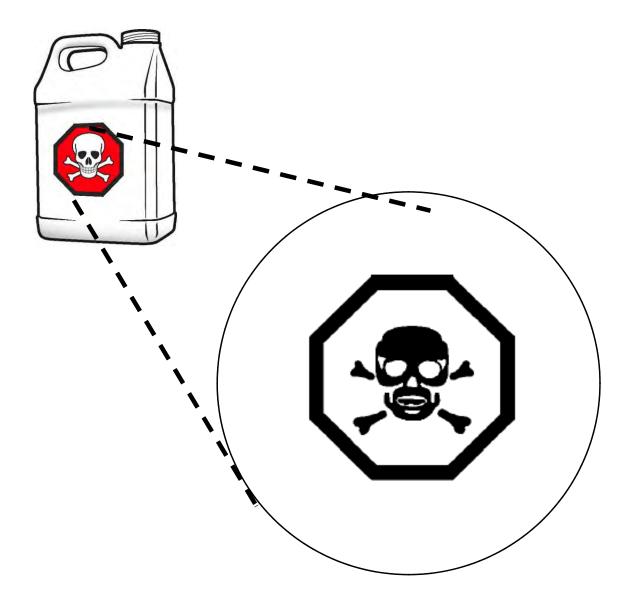
Pesticides in the air can make people and animals sick when they breathe them in.

Pesticides can get into the air if you spray when:

- it's windy
- it's very hot and dry.



The symbols on the front label of the pesticide jug or bag tell you how the pesticide can hurt you.



If you see...



...it tells you that the pesticide is a poison.

If you see...



... it tells you the pesticide is **corrosive.**Corrosive means that it can burn you.

If you see.....



... the pesticide is **flammable**. Flammable means that it can catch on fire.

If you see....



... the pesticide container could **explode**, if it got hot.

The symbols on the front label of the pesticide jug or bag tell you how the pesticide can hurt you.

The shape around the picture tells you how serious the danger is.

The more lines (sides) the shape has, the more dangerous that pesticide is.

If the shape has 3 sides, like a YIELD sign	the danger is <u>low.</u>
If the shape has 4 sides, like a warning sign	the danger is <b>medium.</b>
If the shape has 8 sides, like a STOP sign	the danger is <b>high</b> .



Remember ...

more sides to the shape around each picture, means more danger.

The symbols on the front label of the pesticide jug or bag tell you how the pesticide can hurt you.

If you see this picture and shape ...



... it means the danger is very high and that this pesticide can kill you.

What do these pictures and shapes mean?



1 \_\_\_\_\_



3 \_\_\_\_\_



2 \_\_\_\_\_



4 \_\_\_\_\_

#### For all pesticides, you need to wear:

#### water repellent hat

not cloth

# long pants and a shirt with long sleeves, or a coverall

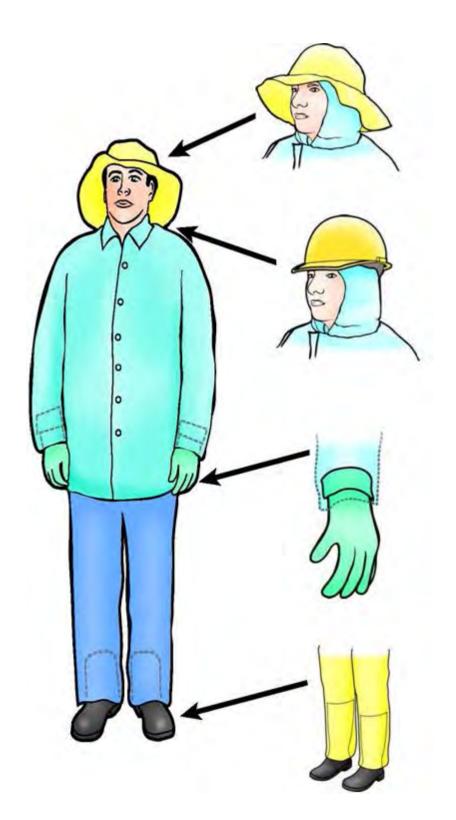
 do the buttons up to the top to protect your neck

#### chemical resistant gloves

- no holes or rips
- no lining
- tucked under your sleeve

#### chemical resistant boots

- tall and unlined
- put pant legs over your boots



Workers are hurt most often when they get pesticides on their skin.

Your skin will let the pesticides into your body more easily if:

• you have cuts or scratches



• it's a hot or humid day.



Workers are hurt most often when they get pesticides on their skin.

Never wipe your face, mouth or eyes with a glove or a sleeve.

This can be dangerous because you might rub pesticides:

- onto your skin
- into your eyes.



#### Don't get pesticides inside your gloves.

If you are spraying above your shoulder:

- wear your sleeves inside your gloves
- fold the top of your gloves to make a cuff.



If you are spraying both above and below your shoulder:

 use duct tape to attach the tops of your gloves to your sleeves.



For some pesticides you may also need to wear:

#### goggles

• to protect your eyes



#### face shield

• to protect your face

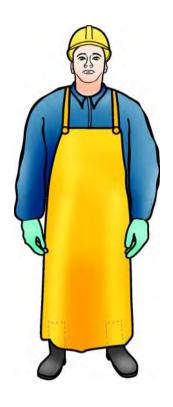


Ask your boss what extra equipment you need to wear.

#### For some pesticides you may also need to wear:

### chemical resistant apron

• to protect the front of your body



**respirator** • to protect your lungs.



Ask your boss what extra equipment you need to wear.

#### Check the respirator fit each time you use it.

If any air can get in or out around the edges of the respirator, the respirator does not fit you.

Tell your boss right away.



#### Check your respirator filters.

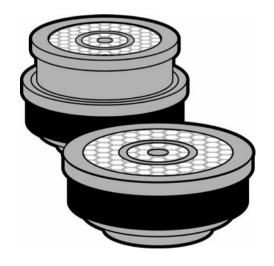
#### Change the prefilter:

 when it is getting hard to breathe.



#### Change the cartridge:

- When you can smell or taste pesticide
- When you feel your nose or throat burning.



Remember ...

Check your safety equipment before you use it and while you are using it.

If you find a problem, tell your boss right away.

If your spray tractor does not have a cab, you may need to wear your respirator while you spray.



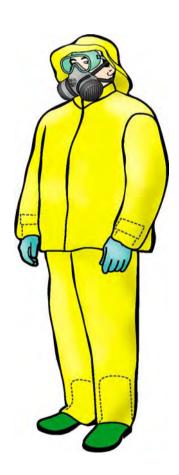
Your boss will tell you if you need to wear your respirator.

You need to wear special equipment when you spray with an air blast sprayer.



#### You need to wear:

- a waterproof rainsuit with a hood
- goggles
- a respirator
- chemical resistant gloves
- chemical resistant boots.



You may need to wear special equipment when you spray in a greenhouse or mushroom house.



#### You may need to wear:

- a waterproof rain suit with a hood
- a cartridge respirator or a helmet respirator with air from a tank you carry (supplied air)
- chemical resistant gloves
- chemical resistant boots



Your boss will tell you the extra equipment you need to wear.

#### **Getting Pesticides from Storage** 1.

Put chemical resistant gloves on.



Look at the jugs and bags to make sure they aren't leaking.



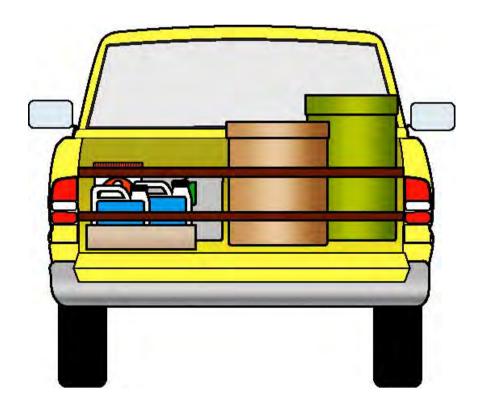
Tell your boss right away if a jug or bag is leaking.

Lock the storage when you leave.



#### 2. Carrying Pesticides

- Keep them away from people. Always put them in the back of the truck or in the trunk of the car.
- Keep the jugs or bags tied down or held in a special box so they can't fall over or bounce around while you drive.



Remember ...

Make sure you are wearing all your safety equipment before you open, mix, use and clean-up pesticides.

#### 3. Opening, Measuring and Mixing Pesticides

You need to be very careful when you open, measure and mix pesticides.

The pesticide in the container is very strong because it has not been mixed with water yet.



Make sure that you have lots of clean water and soap close to you, in case you spill pesticide on yourself.



Your boss will tell you how much pesticide to mix up.

Your boss will also tell you what clothing and safety equipment you need to wear.

#### 3. Opening, Measuring and Mixing Pesticides

When you open pesticide containers:

- keep your face and eyes above the container
- always open on a flat surface
- use a knife or scissors to open the bag or jug.



**Never** open a pesticide container with your teeth.

Never use that knife or that pair of scissors for anything else because it could have pesticides on it.

Never use your own pocket knife to do this job. You could get pesticides on it.

Never rip open a paper or cardboard container because pesticide dust can get into your eyes, mouth, nose, lungs and onto your skin.



#### 3. Opening, Measuring and Mixing Pesticides

When you measure pesticides:

- keep your face and eyes above the container
- always put your measuring cup or weighing scale on a flat surface
- only use measuring containers and mixing buckets that are for pesticides.

When you finish measuring:

- rinse your measuring container with water
- pour the rinse water into the spray tank
- do this rinsing three times.

**Never** use a pesticide measuring cup or mixing bucket for anything else.

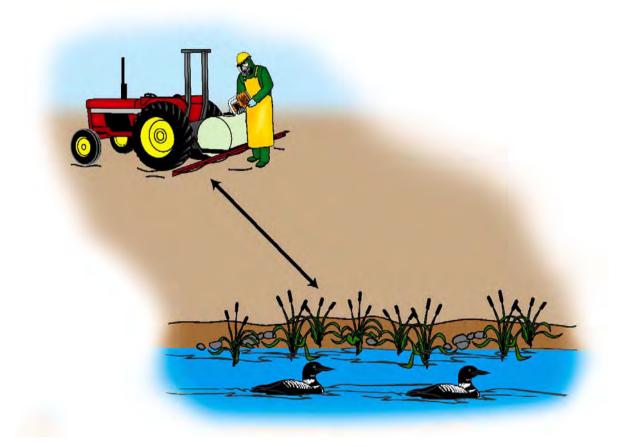
**Never** use your own drinking cup or food containers to measure pesticides. Even if you wash your cup or food containers carefully there could still be enough pesticide in them to make you and your family very sick.





### **Mixing Pesticides in the Spray Tank**

Be sure that the mixing place is away from ponds, streams, ditches and wells.



### 4. Mixing Pesticides in the Spray Tank

When you pour pesticide into the spray tank:

- keep your face and eyes above the container
- pour carefully so that you don't get splashed, or spill pesticide.

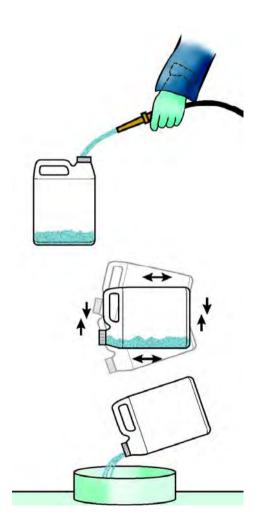


#### 5. Pesticide Containers

#### **Triple Rinse Empty Pesticide Containers**

When you empty a jug or a bag with plastic lining, you need to rinse it 3 (three) times **right away**:

- fill the container about 1/4 full with water
- close the container, then shake or roll it so that you rinse all the sides
- pour the rinse water into the spray tank
- do this rinsing 3(three) times.



#### 5. Pesticide Containers

As soon as you finish mixing pesticides:

- put all the pesticide containers, both empty and full ones, in a safe area where people and animals can't reach them
- put your measuring and mixing containers in a safe place also.



Your boss will tell you where you should put the containers.

#### 5. Pesticide Containers

Never take empty pesticide containers home from work.

Even if you can't see any pesticide left inside them, there is enough there to make you and your family sick.



#### 6. Spraying Pesticides

Check the field (or greenhouse or mushroom house) before you start to spray. The spray you are using could harm people or animals.

Make sure that there are no people or animals nearby.



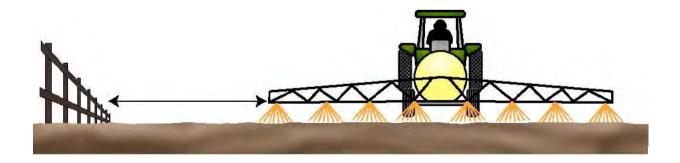




### 6. Spraying Pesticides

The spray you are using may harm people or a neighbour's crop.

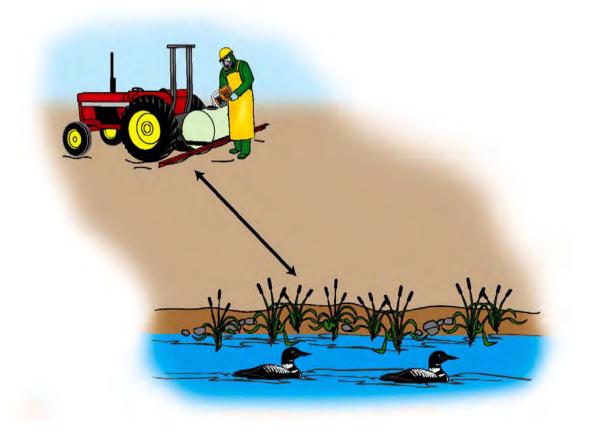
- Your boss will tell you if you need to leave a space between the field you are spraying and:
  - buildings
  - roads
  - a neighbour's field.



### 6. Spraying Pesticides

Check for ponds, streams, ditches, or wells in the spray area.

 Your boss will tell you how close you can spray to the water.



### 6. Spraying Pesticides

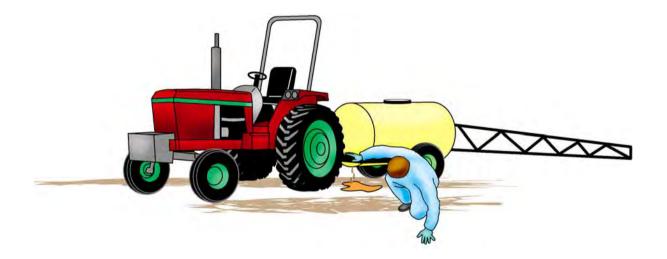
#### Check the weather.

- If it might rain, DON'T start to spray. Tell your boss right away.
- If it gets windy while you are spraying, STOP right away and tell your boss.
- If it starts to rain while you are spraying, STOP right away and tell your boss.



### 6. Spraying Pesticides

**Check** your sprayer carefully before you start. Make sure that there are no leaks and that everything is working.



### 6. Spraying Pesticides

Watch the nozzles when you are spraying.

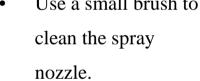
- Make sure the pesticide is coming out from each nozzle evenly.
- If you see a problem with a nozzle, **STOP** the sprayer.

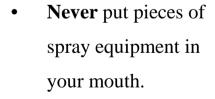


#### **Spraying Pesticides** 6.

Put on chemical resistant gloves, an apron, and goggles, if you need to unplug a nozzle.

Use a small brush to clean the spray









### 6. Spraying Pesticides

Watch for leaks and other problems.

If anything is wrong with your sprayer:

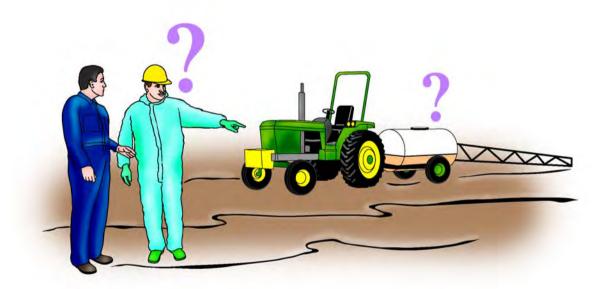
- **STOP** the sprayer
- tell your boss right away.



### 6. Spraying Pesticides

If you have pesticide left in the sprayer when you're finished:

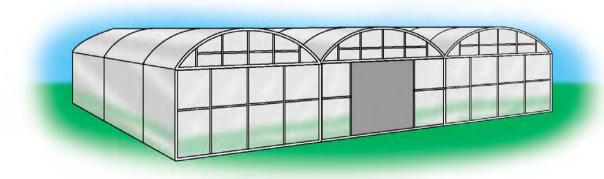
- ask your boss what to do with the left over pesticide
- **NEVER dump** left over pesticide anywhere.



### 7. Spraying Pesticides in a Greenhouse or Mushroom House

You need to be extra careful when you spray in a greenhouse or mushroom house because it's closed in.

If you start to feel dizzy or sick, get out right away and call for help.



#### 7. Spraying Pesticides in a Greenhouse or Mushroom House

You need to be extra careful when you spray in a greenhouse or mushroom house because it's closed in.

If you see someone else inside a greenhouse who is sick:

- put on a respirator
- go in and get that person out
- call for help.



#### 7. Spraying Pesticides in a Greenhouse or Mushroom House

You need to be extra careful when you spray in a greenhouse or mushroom house, because it's closed in.

If you see someone else inside a greenhouse who is sick...

#### but

you don't have a respirator:

- don't go inside
- call for help right away.



### If you see a small pesticide spill:

- protect yourself first
- put on your safety equipment
- tell your boss right away.



### If you see a big pesticide spill:

- protect yourself first
- put on your safety equipment
- send someone else for help
- warn other people to keep away from the spill.



#### Stop the spill.

Make sure you are wearing your safety equipment.

- If a container is leaking, put the pesticide into another container.
- If a container has fallen over, stand it up again and put the lid back on.
- If a sprayer is leaking, shut it off.





#### Stop the spill from spreading.



 If the spill is near a pond, stream, well or ditch, make a wall with soil between the spill and water right away.



#### Clean up the Spill

Your boss will tell you how to clean up the spill.

### 1. Cleaning the Sprayer

Ask your boss how to clean your sprayer.

#### Remember...

wear your safety equipment when you clean the sprayer.

#### Remember...

clean the sprayer away from ponds, streams, ditches and wells.



#### 2. Cleaning Your Safety Equipment

You need to be careful because your safety equipment will have pesticide on it.

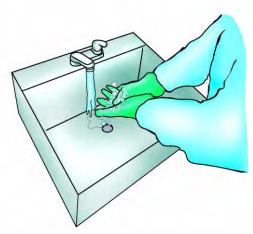
- Don't let other people touch your clothes or equipment that might have pesticide on them.
- Anyone touching those clothes must wear safety gloves.



### 2. Cleaning Your Safety Equipment

#### **Gloves First**

 Wash the outside of your gloves with soap and water while you still have them on.



• **Keep your gloves on** while you take off your other safety equipment.



#### 2. Cleaning Your Safety Equipment

### Goggles, hat, boots and water repellent clothing

- Take them off.
- Wash them in warm soapy water.



- Rinse them.
- Hang them to dry.

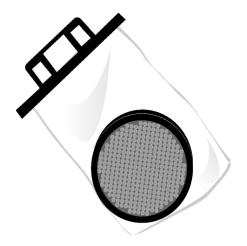


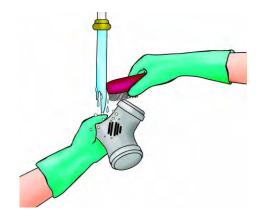
### 2. Cleaning Your Safety Equipment

#### Respirator

- Take your respirator off.
- Put cartridges and prefilters into clean plastic bags.
- Wash the facepiece in warm soapy water.
- Rinse it.
- Hang it to dry.







#### 2. Cleaning Your Safety Equipment

#### **Coveralls**

 Take your coveralls off (with your gloves still on).



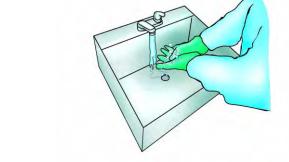
- Put them into an empty plastic bag.
- Keep them out of reach of children and animals until you have time to wash them.



#### 2. Cleaning Your Safety Equipment

#### **Gloves Last**

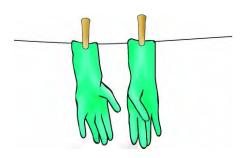
 Wash your gloves again in warm, soapy water.



- Take your gloves off.
- Fill them with water to check them for leaks.



- If they have leaks, tell your boss right away.
- If they do not have leaks, hang them up to dry.





Remember ...

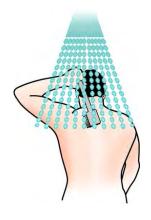
Put everything away.

Ask your boss where to put all of your clean safety equipment.



#### After work each day:

- take off your work clothes
- shower
- clean under your nails
- put on clean clothes.





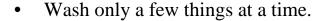
Keep your dirty work clothes away from other laundry.

Even if you wore coveralls, your pants and shirt can have pesticide on them.



#### **Washing Your Work Clothes**

- Put on safety gloves before you touch the dirty clothes.
- Wash your work clothes by themselves, not with your family's clothes.



This makes sure you have lots of soap and water for your work clothes

- Use hot water.
- Use the highest water level.





#### **Washing Your Work Clothes**

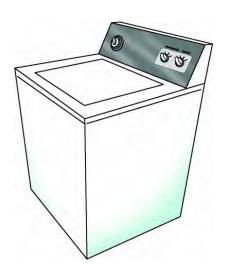
- Wash everything two times.
- Hang the clothes
   outside to dry instead
   of putting them in the
   dryer.



#### Remember...

Right after you have washed your work clothes, clean the washing machine.

- Fill the machine with soap and water.
- Don't add any clothes.
- Let it run.



Even though you wear safety equipment, you might have some pesticide on your hands and face.

Always wash your hands and face before you:

- eat
- drink
- smoke
- chew gum or tobacco



Even though you wear safety equipment, you might have some pesticide on your hands and face.

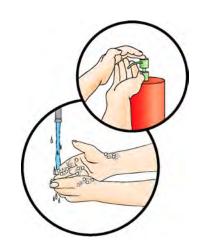
Always wash your hands before you:

• go to the bathroom (whether inside or outside)

The skin in your groin area takes in pesticides very quickly.

You can get skin burns from the pesticides on your hands.

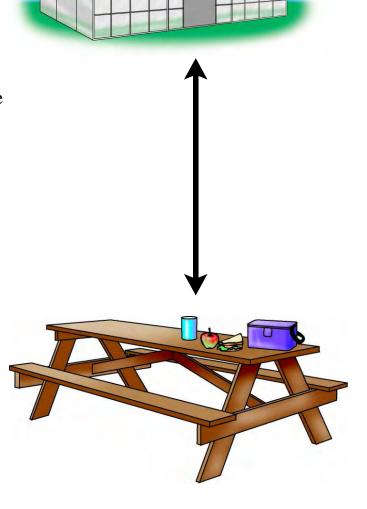
You can get sick later from the pesticides on your hands.





### Pesticide can get into your food, drinks and tobacco.

- Keep them away from your work area.
- Keep them away from where pesticides are stored.



#### Sometimes accidents can happen.

Know the signs. If you get sick from pesticides, you may:



• feel tired



• have a headache



feel dizzy



have trouble seeing (blurred vision)

### Sometimes accidents can happen.

Know the signs. If you get sick from pesticides, you may:



• have trouble breathing



• have pains in your chest



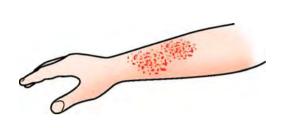
• throw up



• have stomach cramps or diarrhea

#### Sometimes accidents can happen.

Know the signs. If you get sick from pesticides, you may:



 have a rash on your skin or feel like your skin is burning



 have burning or itching eyes, or feel like you have sand in your eyes



 act or talk like you have been drinking alcohol

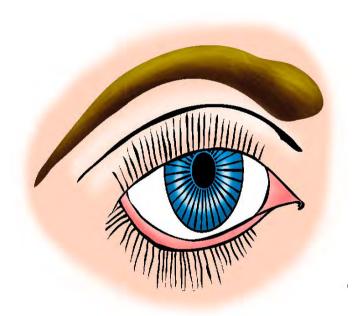


drool

#### Sometimes accidents can happen.

Know the signs. If you get sick from pesticides, you may:

have very small pupils
 (the black part in the middle of your eyes).



### If you are too sick to go to your boss:

- call to the nearest person for help
- tell that person to go and get the boss right away.



Even if you don't feel sick, you should always tell your boss right away if you:

 spill pesticides on yourself when you are mixing



get pesticide in your eyes



• breathe in pesticide.



Sometimes a pesticide may not make you feel sick right away, but it could make you sick later in the day.



### Know what to do if you get pesticide in your eyes.

Pesticides can hurt your eyes very quickly and make you blind.

If you get pesticide in your eyes:



- get to water right away
- hold your eyelids open
- rinse your eyes with water for at least 15 minutes
- tell your boss right away.



### Know what to do if you get pesticide on your skin.

If you get pesticide on your skin, and your skin does not burn:

 remove any clothing with pesticide on it

wash your skin with lots
 of soap and water right
 away

The longer that the pesticide stays on your skin, the more likely that it will make you sick.

• tell your boss right away.





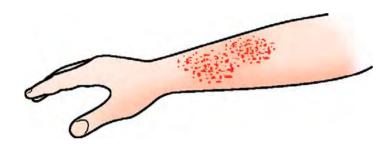
### Know what to do if a pesticide burns your skin.

If you get pesticides on your skin, and your skin is burning:

• leave your clothing on at first.

### If it is a powder pesticide:

brush the pesticide off first



• rinse with lots of water.

### If it is a liquid pesticide:

 rinse with lots of cool water right away.



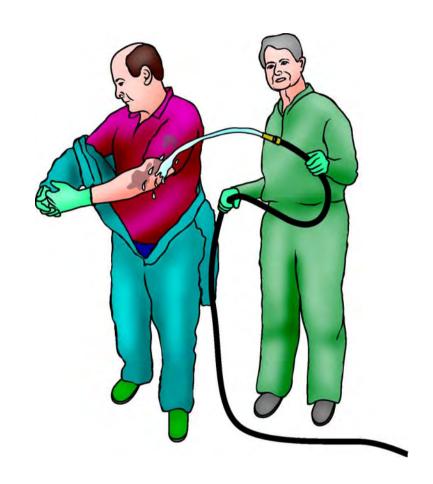
#### Know what to do if a pesticide burns your skin.

Keep pouring water on the burned area while you take your clothes off.

If your clothes are stuck, DON'T pull the cloth away from the burn.

**If your clothes come off easily,** cover the burn lightly with a clean cloth.

Tell your boss right away.



### Know what to do if a pesticide burns your skin.

If you are burned, DON'T:



use soap



• touch the area that is burned



break blisters



• put ointment or lotion on the burn

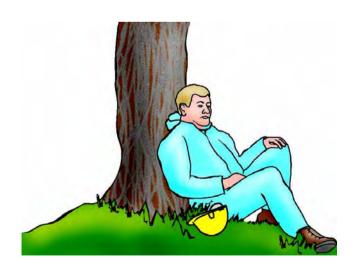
#### Know what to do if you breathe in a pesticide.

If you breathe pesticide into your lungs:

- get to fresh air right away
- call for help so that someone can tell your boss right away
   If you can't shout, try to get someone's attention any other way that you can.
- sit down and try to breathe normally.
   Walking around can make it harder to

breathe.





# Know what to do if someone inside a greenhouse or mushroom house is sick.

If you see someone inside a greenhouse or mushroom house who is sick:

- put on a respirator
- go in and get that person out
- call for help
- take their respirator off, if they have one on
- loosen their clothing.





If someone else has breathed in a pesticide, make sure that you don't breathe it in too.

#### Know what to do if someone swallows a pesticide.

If someone swallows a pesticide:

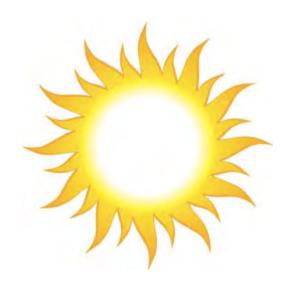
- call for help right away
   The person could die very quickly.
- don't try to make the person vomit

This could make the person sicker.

- tell your boss what happened
- give the pesticide jug or label to your boss
- your boss will phone a doctor at the Ontario Poison Centre right away.







#### **Heat Stress**

If it is a very hot day when you spray, you can also get sick from heat stress (sickness).

Heat sickness can look a lot like pesticide poisoning.

Heat sickness can be very serious.

You could die.

#### **Heat Stress**

When you work on hot days:

drink lots of water
 before work, during
 work breaks and
 after work



drink at least onecup of water everyhalf hour.Drink more if you aresweating a lot.



### **Heat Stress on Hot Days**

Safety equipment can make you feel hotter.

Try to work with
 pesticides when it's
 cooler - early in the
 morning, or in the
 evening.



 Take breaks in the shade if you can, to help your body cool down.



#### **Heat Stress**

If you are working on a hot day and you feel sick:

- STOP what you are doing
- tell your boss right away.



### **Heat Stress**

If you think that someone else you work with is sick from the heat, send someone to tell your boss right away.



#### **Heat Stress**

Try to cool the sick person down:

- take off their outer clothing
- pour water on them
- fan them
- put wet cloths or towels around them loosely
- keep pouring water
   on them and
   fanning them on the
   way to the doctor.



#### Know how to protect yourself and others from pesticides.

You shouldn't get sick from pesticides, if you handle them carefully, and you wear the right clothing and safety equipment.



When you work with pesticides,

#### ASK your boss, BEFORE you start:

- what clothing and safety equipment you need to wear
- what the symbols on the pesticide label mean
- what to do if a pesticide spills
- where your boss wants you to spray
- how close you can spray to buildings, roads, neighbour's fields and water
- what to do if you have pesticide left in the sprayer.

Make sure that you know where your boss will be, or how you can talk to your boss by phone or radio.

#### When you work with pesticides,

#### Always check BEFORE you start:

- that your safety equipment fits properly and works properly
- that the sprayer works properly.

#### STOP, and TELL your boss right away:

- if your safety equipment has leaks, doesn't work or doesn't fit you
- if you spill pesticides
- if pesticides get on your skin, in your eyes, in your mouth, or you breathe them in
- if you feel sick
- if it starts to get windy or it rains when you are spraying outside
- if your sprayer leaks or isn't working properly.



Remember ...

You can be safe when you work with pesticides, if you follow these rules.

