

## **Integrated Pest Management Program - IPM Manual for Home & Garden Pests in B.C. - Chapter 3**

### **Integrated Pest Management**

---

#### **IPM Manual for Home and Garden Pests in British Columbia**

---

#### **Chapter 3: Pesticide Handling Guidelines**

##### **Learning Objectives**

When you have completed this chapter, you should be able to:

1. Describe why it is important to store pesticides correctly and list the requirements for pesticide storage and display areas.
2. List general safety precautions for transporting pesticides.
3. Describe the protective clothing and equipment an applicator should wear while applying pesticides.
4. List general safety precautions for mixing pesticides.
5. List general safety precautions for applying pesticides.
6. Be able to provide information on buffer zones, re-entry times, and days to harvest.
7. Describe how poor pesticide handling practices can harm the environment and list precautions for preventing environmental damage.
8. Describe safe disposal of empty pesticide containers and unwanted residue.

[↑ Top](#)

---

### **Introduction**

Pesticides are used to kill or control animals, plants and other organisms. If they are not handled correctly they can also harm people, other non-target organisms, and damage the environment. Following the basic precautions described in this chapter will greatly increase the safety factor in using pesticides.

Pesticides vary greatly in toxicity, persistence and other characteristics. When a pesticide is called for to manage a pest problem, the dispenser should recommend the least hazardous products wherever possible to reduce the risk to people, pets and the environment. For recommendations on less hazardous pesticides (called preferred

pesticides in this manual) refer to chapters on pesticides (Section II) and pest management (Section III).

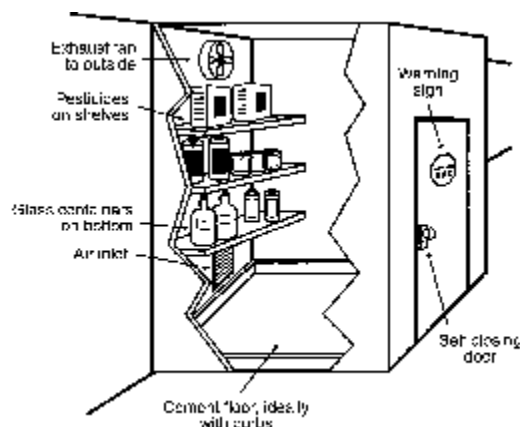
The first part of this chapter covers specific requirements for displaying and storing pesticides at the vendor site. This is followed by information and precautions a dispenser must know in order to answer questions from customers and help them handle pesticides in the safest manner possible.

[↑ Top](#)

## Storing Pesticides

### Storage at the Vendor Site

**Storage Area Requirements:** Legally, non-Exempted Domestic pesticides on display or stored by a vendor must be separated from human or animal food by a direct distance of 10 metres, or must be kept in a separate room. (Note: All Commercial class pesticides must be stored and displayed in a separate room).



When pesticides are kept in a separate room, the room must have solidly constructed partition walls from floor to ceiling, separating the air in the room from the remainder of the premises. The room must also have a self-closing door and be ventilated by an exhaust fan discharging to the outside of the building. The pesticides could also be stored in a separate building or room that meets these requirements.

A pesticide display area should be located

where:

- people are unlikely to bump into the display
- children will not be able to reach the pesticides, or have easy access to them
- there is good ventilation
- it is away from areas where staff spend long periods of time

The temperature of pesticide storage areas should be moderate year around to ensure containers do not explode from heat expansion or break from freezing. Moderate temperatures also keep the products from degrading and losing effectiveness.

**Check Containers:** Containers of stored pesticides should be inspected regularly for damage and leaks. Leaking containers or spilled pesticides will contaminate the storage area. This could poison staff and customers if they come in contact with the spilled chemicals while handling the containers. Leaking containers can also cause environmental damage if, for example, the pesticides are discharged outdoors where they can be carried into ditches or storm drains.

**Note:** Large bags of lawn herbicide/fertilizer products should be handled carefully and checked thoroughly. They are particularly prone to splitting and spilling due to the

weight of the bags. Spilled product can be tracked from the display area throughout the vendor site and into the vehicles of customers.

**Keep a Spill Kit:** A basic spill kit should be located near the storage or display site. It should contain absorbent material such as kitty litter, a plastic bucket with lid, a broom and dustpan, and decontamination materials. For information on how to handle pesticide spills, see Chapter 5.

**Post Emergency Numbers:** Phone numbers of the local Fire Department, Police Department, Ambulance and Poison Control Centre and the Provincial Emergency Program (1-800-663-3456) should be clearly posted at the storage or display site in case of an emergency.

**Notify Fire department:** The fire department must be notified of the presence of non-Exempted pesticides, such as any Domestic or Commercial labelled products, on the vendor premises. This is a legal requirement.

**Note:** Exempted pesticides do not have to be displayed or stored separately from food. However, every effort should be made to prevent a customer from carrying such pesticides in the same bag or box as food or personal items.

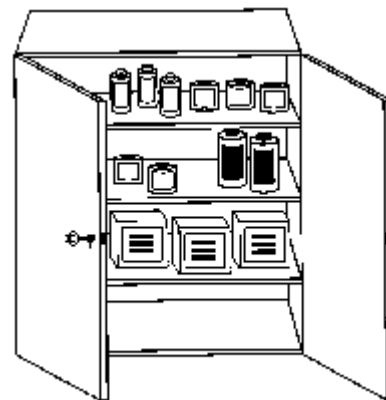
## Storage at Home

The biggest concern with improperly stored pesticides around homes is accidental poisoning of children, although other people and pets are also at risk. Most calls to poison control centres involving pesticides are incidents where the exposure happened at home. Poisonings occur when pesticides are stored in a container without a proper label (such as a pop bottle), when pesticides are spilled and when they are handled incorrectly. If it is necessary to store pesticides, the dispenser should give advice to customers on safe storage procedures.

**Minimize Amount Stored:** The amount of pesticides to be stored should be kept to a minimum. Ideally, the customer should buy enough for one application or, at most, enough for only one year. Purchasing excess pesticide requires long-term storage, which increases the risk to people, pets and the environment. Also, some pesticides degrade over time and lose their effectiveness.

**Use Original Containers:** Pesticides should always be kept in their original containers with the label attached. Leaking pesticides, small amounts of pesticides or mixed pesticides should never be stored in food or beverage containers. Unsuspecting people (especially children) can, and do, drink pesticides by mistake, resulting in severe illness or death.

**Isolate Pesticides:** Pesticides must be put in a location where they are out of reach and will not be disturbed by people and pets. Pesticides must be stored away from working and living areas. It is safest to store pesticides in a locked cabinet, shed or room, that is well ventilated. This should not be in a garage or outbuilding, however, where the containers are likely to freeze during the winter.



**Keep Cool and Dry:** The storage area should be cool and dry, and protected from sunlight, extreme heat and freezing temperatures. Sunlight and heat degrade pesticides and containers exposed to high temperatures will expand, which may cause them to leak or explode. Freezing can break containers and cause pesticide ingredients to separate.

**Inspect Regularly:** Stored pesticides should be checked for damaged or leaking containers. Spilled pesticides can contaminate the storage area and nearby household items. They may poison people or pets as they walk through the spilled pesticide or otherwise come in contact with it. Leaking pesticides also could cause environmental damage if they are released outdoors. If a container is found to be leaking, it should be placed in a larger container, such as a plastic bucket, to prevent more pesticide from spilling into the storage area. The new container must be clearly labelled with the pesticide name and active ingredients.

[↑ Top](#)

---

## Transporting Pesticides

Pesticides must be transported with care to avoid the possibility of spills. Spilled products may release toxic vapours, contaminate other goods and possibly poison people or pets exposed to the products. Also, contaminated materials, such as upholstery on car seats, are very difficult to clean properly. People usually do not realize how much cleaning is required to decontaminate such materials. The following precautions should be taken while transporting pesticides:

**Isolate Pesticides:** Pesticides should be placed in a separate bag or box. They must not be placed in a bag or box containing food, clothing, toys or other articles.

**Separate Pesticides:** In a vehicle, bags or boxes containing pesticides should be separated from people or placed as far away from people as possible. For example, they should be put into the trunk of a car, the rear portion of a van or in the back of a truck.

**Secure Pesticides:** Pesticide containers should be secured so that they cannot be broken or tipped over during transport. Ideally, the container should be placed in a box to ensure it won't move if the vehicle makes a sudden stop.

**Keep Pesticides Dry:** Pesticides in paper packaging must be kept dry. If a package gets wet, the pesticide may become caked or hardened. The wet paper may also rip, allowing the pesticide to spill from the bag.

**Lock Vehicle When Absent:** When transporting pesticides, the vehicle must be locked if left unattended to prevent children, or anyone else, from gaining access to the pesticides. Pesticides in the back of a pickup truck should be in a locked box.

[↑ Top](#)

---

## Protective Clothing and Equipment

Pesticides can enter the body through the skin, eyes, nose or mouth. The major route of entry into the body, however, is through the skin. Prevent exposure to pesticides by wearing suitable protective clothing and other equipment as required.

## Minimum Protection

The minimum protective clothing worn while applying pesticides should consist of:

- long-sleeved shirt
- long pants
- shoes and socks
- unlined chemical resistant gloves



**Note on Gloves:** Unlined chemical resistant gloves should always be worn when handling pesticides to protect the skin on the hands. Gloves made from neoprene or nitrile offer the best protection. Common household rubber gloves do not provide good protection from some pesticides. Never use leather, cloth, or lined rubber gloves, as these absorb pesticides and cannot be properly cleaned. Wearing contaminated gloves will result in pesticides being absorbed into the skin.

## Additional Protection

For some kinds of applications and under certain conditions, additional protective clothing and equipment is needed to protect the user. These include:

**Rubber Boots:** The user should wear unlined rubber boots if there is a chance that shoes could become wet with pesticide. Pants legs should extend down over the outside of the rubber boots to keep out pesticide.

**Coveralls:** Wearing coveralls is recommended if there is a chance that the user's pants or shirt could become wet with pesticide. Coveralls can be of cloth or the disposable type. Some disposable coveralls can be worn several times and may last for several months before being disposed of.

**Rain Suit:** Rain suits may be necessary while spraying trees or while treating areas outside where there is a risk that wind direction may change and blow spray onto the user.

**Waterproof Hat:** A waterproof, large brimmed hat should be worn if it is necessary to protect the user's hair and face from spray.

**Goggles:** Protective goggles should be worn if there is a chance pesticide dust or spray mist may get into the user's eyes.

**Respirator:** Users should wear respirators to protect their lungs if the label precaution states "avoid inhalation" or if there is a risk that



pesticide vapours or dusts could be inhaled. The most common respirator is a half-face cartridge type, which covers the nose and mouth. Chemicals are filtered out when air is inhaled through an organic vapour cartridge attached to the face mask. Cartridges are replaced at regular intervals and should be stored in sealed plastic bags when not in use. Respirators come with instructions on how to make sure they fit the wearer's face (or check with staff of a safety supply store) and how to maintain the equipment. These instructions should be followed carefully.



**Note:** A dust mask is not a suitable alternative to a respirator. A dust mask can protect the lungs from non-toxic dust but not from chemical insecticide dusts, liquid mists or liquid sprays that release toxic vapours.

 [Top](#)

---

## Mixing Pesticides

### Ready-to-use Pesticides

To avoid the need to mix pesticides, customers should be encouraged to purchase ready-to-use pesticides when possible. Ready-to-use products may be best when customers:

- have a pest problem that is likely to occur infrequently or that involves only a small area of application
- are not familiar with the use or handling of concentrated pesticides
- cannot calculate how to mix the concentrated pesticide to get the proper application concentration
- do not understand how a compressed-air sprayer works if it is required for application
- do not know how to calibrate the application equipment, such as measure and adjust its output, if it is required for application
- do not have a safe storage area for concentrated pesticides

#### Ready-to-use Products

These products are pre-mixed and ready-to-use directly from the container. The ready-to-use products may come in small (500 ml) or large (4 L) containers. They come in a variety of formulations, such as bait pellets, liquids, granules, or dusts. They are usually packaged in applicator containers, such as hand-sprayers, aerosol cans or containers with a dust applicator top. Products are generally less toxic than pesticides that require mixing because they are already diluted for use.

## Pesticide Concentrates

Pesticide products sold in concentrated form are meant to be mixed with water to the correct dilution. It is essential to follow recommended mixing procedures because:

- pesticide concentrates are generally more toxic than diluted sprays
- improper handling of concentrated pesticides can result in poisoning if skin or eyes are contaminated or a pesticide is inhaled into the lungs
- pesticides spilled on the ground contaminate the environment
- the correct dilution is required to ensure effectiveness
- incorrect dilutions can burn plants or cause other damage

## Mixing Precautions

**Mixing Area:** Mix in an area that is well ventilated, well lit and a safe area in which to work. No other people (especially children), or pets, should be allowed near the mixing area.

**Check Labels:** Mix only the recommended amount of pesticide as described on the label. Too much or too little in the mix can cause undesirable results, such as leaf damage to plants or failure to control.

**Separate Pesticides:** Only one product at a time should be mixed in a container for application. If two products are needed, they should be applied separately, unless the products are clearly labelled for joint application, such as dormant oil and lime sulphur.

**Wear Protective Clothing:** See [Protective Clothing and Equipment](#).

### Handle Packages Carefully:

- use scissors or a sharp knife to cut open paper bags carefully — do not rip them open
- hold all pesticides and containers below eye level while handling to prevent pesticide from accidentally being splashed into the eyes
- be careful not to spill or splash liquids, or to create dust, when mixing

**Protect the Water Supply:** It is essential to avoid contaminating the water supply when putting water into the spray tank. For example, do not push the end of a water hose into the spray tank where it will contact the spray mix. Instead, fill a clean container with water and then pour the water into the spray tank.



**Measure Accurately:** Use measuring spoons and measuring cups for accurate measurement. These measuring tools must be used for pesticide only, never as cooking or eating utensils. They should be labelled "Poison" or "Pesticides Only." A good place to keep these utensils is in the pesticide storage area.

**Note:** Pesticide vendors should sell suitable measuring utensils in the pesticide display area.

**Mix Correctly:** Concentrated pesticides must be evenly mixed with water in the correct proportion before application

(see Calculating How Much Pesticide to Buy). The treatment could be spotty if the pesticide is allowed to settle in the spray tank, as might happen if the concentrate is put into the sprayer before adding water.

Correct mixing techniques involve four steps:

- pour water into tank to half-full level
- use measuring tools to measure out the correct amount of concentrate and put it in the tank
- pour in the remaining amount of water
- close tank, then shake tank to make sure mixing is complete

**Rinse Containers:** Rinse empty liquid pesticide containers with a small amount of water and put the rinse water into the spray tank.

[↑ Top](#)

---

## Applying Pesticides

### General Precautions

**Do Not Eat, Drink or Smoke:** The user must not eat, drink, or smoke when applying pesticides because pesticide on the skin or clothing may accidentally be consumed or inhaled.

**Spill Response:** If a pesticide is spilled on the user, the user should immediately stop, remove contaminated clothing, wash, and put on clean protective clothing before cleaning up the spill.

### Before Application

To prepare a treatment area indoors:

- remove toys, clothes and books or magazines
- in kitchens, remove dishes and food, or place them in closed cupboards that are not being treated
- remove or cover aquariums and turn off air pumps
- keep people and pets out of the area

To prepare a treatment area before applying pesticides outdoors:

- remove or cover toys, lawn chairs and fish ponds
- keep people and pets out of the area

### During Application

While pesticides are being applied, the applicator must take into account:





**Wind:** Spraying outdoors should be done when there is little or no wind. Winds will blow pesticides off target, giving poor results as well as risking contamination of non-target areas.



**Drift:** This is the movement of very small spray or dust particles and must be prevented or reduced as much as possible. For example, where herbicides are used near desirable plants, even a tiny amount of herbicide drift can injury or kill the plants. It can also become a critical issue if pesticide drifts onto a neighbour's property.

To prevent or minimize drift:

- use a coarse spray of large water droplets rather than a fine spray
- apply the pesticide close to the target
- apply the pesticide when there is no wind
- apply when air temperatures are below 30°C
- use granular instead of dust formulations

**Rain:** Do not apply a pesticide just before, during or after a rainfall. The pesticide may be diluted or washed off, giving poor results, and possibly contaminating non-target areas.

**Temperature:** Pesticides should be applied when temperatures are moderate. High temperatures (above 30°C) can result in excessive release of pesticide vapours and also increase the risk of plant injury from some pesticides. Low temperatures (below 10°C) may also prevent the pesticide from working as it should.

**Timing:** Follow label instructions, if any, on the best timing of the pesticide application. How effective a treatment will be can depend on the growth stage of the pest. For example, a herbicide may kill weed seedlings but not provide satisfactory control of older plants. Also, some herbicides are only effective while weeds are actively growing and will not work on mature plants.

**Non-Target Organisms:** Avoid killing beneficial insects and other non-target living organisms by limiting the pesticide application to only those plants or areas that require treatment. For example, do not use up excess pesticide by spraying more area than was originally planned to be treated. In some cases it may be necessary to adjust the timing of pesticide applications. For example, to protect honeybees, insecticides should only be applied when fruit trees or other plants are not in bloom.

## After Application

**Clean up:** Clean-up procedures include washing hands and face with soap and water. The user should shower if there is any body contact with the pesticide. Contaminated clothing should be removed and washed separately from other laundry.

**Observe Re-Entry Times:** Follow any instructions about entering treated areas provided on the label. If no instructions are given on the label, then the following precautions are recommended:

After indoor treatments:

- People should not be allowed to enter the treatment area until the pesticide is dry. Wait at least 6 hours before re-entry — the longer the better.

- Pregnant women, new-born babies and people with breathing problems should not enter the treatment area for 12-24 hours.
- The area should be ventilated before re-entry by opening doors and windows and turning on fans to get a complete change of air.

After outdoor treatments:

- The treatment area should not be entered until the area is dry. A 24-hour waiting period is recommended.
- If it is necessary to re-enter the area during this time, proper safety protection for hands and feet should be worn (for example, rubber boots and gloves).

**Note:** Both indoor and outdoor re-entry times should be viewed as a minimum. This is because standardized re-entry times have so far not been developed using scientific data on pesticide concentrations in air. In general, the longer any treated area can be ventilated before people re-enter it, the better.

**Observe 'Days to Harvest':** After a pesticide is applied to fruits, vegetables or other edible plants, the crop should not be harvested until after the required waiting period, usually stated on labels as "days to harvest." If harvested too soon after applying pesticides, food crops can contain unacceptably high levels of pesticide residues. The minimum number of days that should pass between the time a pesticide is applied and when the crop is harvested depends on the pesticide and the type of plant. Some pesticides are safe enough to be used up until the day of harvest, others are so persistent that several months are required before produce can be harvested. Pesticide labels list the days to harvest for each type of produce as approved by Health Canada.

 [Top](#)

---

## Protecting the Environment

There are several ways that pesticides can cause environmental damage. Dispensers should know what these harmful effects are and how to prevent them. It is the user's legal responsibility to ensure that they do not harm the environment. The dispenser must try to make sure that customer knows enough about handling pesticides correctly to avoid causing environmental damage.

### Possible Harmful Effects

The greatest potential for environmental damage from pesticide use lies in the risk of harming non-target, living organisms, including:

**Pets and Wildlife:** Many pesticides, particularly insecticides, rodenticides, slug baits, and wood preservatives are highly toxic to pets and wildlife. Always check labels for warnings about effects on wildlife. As a rule, pesticides that are toxic to humans are also toxic to wildlife such as birds, raccoons, and squirrels. Pesticides with the poison symbol (skull-and-crossbones) on the label are of particular concern.

**Fish:** Some pesticides are highly toxic to fish and other aquatic life. Pay attention to all label warnings.

**Beneficial Organisms:** Since naturally occurring beneficial organisms provide most of the control of pests in the environment, it is important to protect them in order to prevent pest problems. For example, most insecticides are toxic to bees as well as to predatory insects, such as lady beetles, lacewings, ground beetles, and parasitic wasps. Miticides and some fungicides are toxic to beneficial predator mites.

**Desirable Plants:** Most herbicides will kill desirable plants if accidentally applied to them. Some insecticides will also damage plants if mixed or used incorrectly.

## Preventing Environmental Damage

The best way to avoid damaging the environment with pesticides is to use non-chemical controls wherever possible (see Section I of this manual). If pesticides are necessary, the first choice should be the lowest toxicity or least persistent product. Other ways users can help to reduce the risk of environmental damage include:

**Minimize Drift:** Pesticide sprays should not be allowed to drift outside the desired treatment area. Do not spray on windy days and do not allow sprays to drift onto a neighbour's property. Spot sprays, to target plants only, should be used instead of broadcast sprays wherever possible.

**Prevent Water Contamination:** Leave an untreated strip or buffer zone around water including ponds, streams and wells. Pesticide sprays and runoff must not be used in a way that contaminates groundwater, ponds, streams, or marine areas. Unwanted pesticides and spray mixtures must not be poured into household or municipal drains.

**Prevent Animal Poisoning:** Pets and wildlife should be kept out of treated areas. Broadcast sprays and soil drenches of toxic insecticides should not be used on plants or areas where birds or other animals are likely to feed after treatment. Granular formulations of pesticides are particularly hazardous to birds. Rodenticides and slug bait must not be placed where they are accessible to pets or wild animals.

**Protect Beneficial Insects:** To protect beneficial insects, use insecticides that are the most selective, meaning that their effect is limited to certain group of insects. For example, products containing *Bacillus thuringiensis* only affect caterpillars, but not other insects. Use short-lived insecticides such as those containing soaps and pyrethrins.

**Protect Desirable Plants:** Herbicide sprays and vapours must not be allowed to drift onto desirable plants. For example, do not use non-selective herbicides, such as those containing glyphosate, on lawn weeds as they will also kill the turfgrass. Soil sterilant herbicides should not be applied near trees, shrubs, or garden areas.

## Buffer Zones for Sensitive Areas

Pesticides can be particularly damaging if applied too close to sensitive areas, such as desirable plants, water ditches, ponds, streams, or lakes. To avoid contaminating such areas, applicators should leave a "buffer zone" between the treatment area and the sensitive areas. A buffer zone is an area of land between the sensitive area and the treatment area where pesticides are not applied. This zone must be wide enough to ensure that any overspray, pesticide drift, or runoff could not cross this zone and

reach the sensitive areas. The following are examples of buffer zone recommendations for most pesticides used by home and garden customers:

**One Metre Around Gardens:** A buffer zone at least one metre wide should be used to protect ornamental beds and gardens from herbicides, or to protect vegetables, fruits, and other edible plants from insecticides being used on nearby ornamentals. Leave greater distances if a breeze is blowing toward the sensitive area (better yet, wait until there is no wind).

**Drip Line Plus One Metre:** Granular herbicides and granular herbicides mixed with fertilizers should be applied no closer than one metre out from the drip line of trees. The drip line is the outer edge of the canopy of leaves on a tree, where water drops from the foliage. This is where the tree usually has many roots and where herbicides would be most damaging to the tree.

**Two Times Tree Height:** Soil sterilants should not be applied within a distance equal to two times the height of a tree, measured from the base of the tree.

This is because tree roots can extend long distances. For instance, if a tree is 10 metres high, then the soil sterilant should not be applied within 20 metres (2x10 metres) of the base of the trunk.

**10 Metres From Water:** Pesticides should not be applied near ponds, lakes, streams or other bodies of water. A buffer zone of at least 10 metres should be kept between the margin of the water body and the edge of the treatment area.

 [Top](#)

---

## Pesticide Disposal

### Empty Containers

**Legal Requirements:** Domestic pesticide containers that have been thoroughly drained can be placed in an outdoor household garbage can for disposal with garbage sent to a municipal landfill site.

For containers that held concentrated pesticides, it is recommended that the user rinse the empty container with water and pour the rinse material into the spray tank when mixing the spray solution. The rinsed container can then be disposed of in the garbage.

**Note:** Paper bags or cardboard packaging containers must not be burned as the burning bags or cardboard will release pesticide fumes. No goods or other items should be stored in used containers and the containers should not be re-used for any purpose.

### Waste Pesticides

The long-term solution to the problem of disposing of surplus pesticides is not to accumulate excess pesticides in the first place. Customers should be encouraged to use alternatives to pesticides or to buy only small amounts of pesticides that can be used up in a single season.

Unwanted pesticides must not be poured down the drain, into the sewer, or into any water bearing body such as a ditch, stream, or lake.

Under new legislation, industry is required to establish and fund a system for collecting household hazardous waste throughout BC. Unwanted or waste domestic pesticide products that have a poison symbol (skull-and-crossbones) on the label can be taken to industry operated collection facilities in most major population centres across BC. These are referred to as Consumer Product Stewardship Program Collection Depots. There is no charge to drop off these pesticides. Such unwanted pesticides must be safely stored until they can be taken to the depot. Pesticide vendors must provide their customers with information on the location of these depots on request. [For locations of local depots, call the Consumer Protection Stewardship Program: 1-800-505-0139 or 604-878-8700].

 [Top](#)

## STUDY QUESTIONS

Answers are provided [here](#).

1. Which of the following describes safe storage conditions for pesticides around homes?

- a) pesticides should be kept in the basement
- b) leaking pesticide containers should be replaced with resealable containers such as pop bottles
- c) the storage area should be dry and protected from extremes in temperature
- d) the fire department must be notified of the presence of Domestic pesticides at a residence
- e) (c) and (d)
- f) (b) and (c)

2. Why should pesticide vendor storage areas be inspected often?

3. Which is the recommended list of items for a pesticide spill kit?

- a) kitty litter, broom and dustpan, and plastic bags
- b) paper towels, broom and dustpan, plastic bucket with lid, and sand
- c) kitty litter, broom and dustpan, plastic bucket with lid, and decontamination materials
- d) kitty litter, shovel, dustpan, garbage can, and emergency numbers

4. Which of the following are precautions to ensure safe transport of pesticides?

- a) pesticides should be placed on the back seat of the vehicle, away from the driver.
- b) pesticides should be secured so they cannot tip over and break during transport.
- c) pesticide containers must be properly sealed before being placed in bags with food or clothing.
- d) if pesticides are being transported in a truck, they should be kept on the floor of the cab to ensure they do not tip over.
- e) (b) and (d)
- f) (a) and (d)

5. Are leather gloves and a dust mask suitable protection for someone applying pesticides? Why or why not?

6. Following recommended mixing procedure for pesticide concentrates is important because:

- a) improper handling of concentrates can result in poisoning.
- b) all pesticides are sold as concentrates.
- c) storing concentrates around the home is not safe.
- d) spilled pesticides contaminate the environment.
- e) (a) and (c)
- f) (a) and (d)

7. Precautions for mixing pesticides include:

- a) seal off the mixing area from the rest of the building.
- b) if two pesticides are needed, mix them together so two applications are not required.
- c) cut open paper bags instead of ripping them open.
- d) rinse empty containers and dispose of the rinse water at a landfill.

8. What type of tools should be used for measuring pesticides? Where should they be kept?

9. When preparing an indoor area for treatment, the applicator should:

- a) remove furniture and wall coverings.
- b) remove toys, clothes and books.

- c) keep people and pets out of the area.
- d) seal off the area from any air currents that may carry the pesticide.
- e) (b) and (d)
- f) (b) and (c)

10. Why is wind a consideration during pesticide application?

11. Why is it important to observe the days to harvest required for a specific pesticide and crop? Where can this information be found?

12. How can pesticide use potentially damage the environment?

13. List ways an applicator can reduce the risk of pesticide damage to the environment.

14. A one-metre buffer zone from the dripline of a tree is recommended when applying:

- a) any pesticide near a water body.
- b) any pesticide near ornamental beds or gardens.
- c) granular herbicides or herbicide-fertilizer mixtures near trees.
- d) soil sterilants near trees.

Print and Close

Cancel