

# 1. Using Pesticides in Ontario

The information in this chapter is updated regularly. For up-to-date information, visit [www.ontario.ca/usingpesticides](http://www.ontario.ca/usingpesticides). Some of the information in this generic chapter may not apply to all crops.

**Read the label before use.  
Product labels may change.  
Review the *Grower Pesticide Safety Course Manual*. Keep detailed spray records.**

## Federal Registration of Pesticides

Before a pesticide can be sold or used in Ontario, it must be registered under the federal *Pest Control Products Act* (PCP Act) and be classified under the provincial *Pesticides Act*. The Pest Management Regulatory Agency (PMRA) of Health Canada registers pesticides for use in Canada following an evaluation of scientific data to ensure that the product has merit and value. It also ensures that any human health and environmental risks associated with its proposed uses are acceptable.

The PMRA re-evaluates registered pesticides to determine whether today's health and environmental protection standards are still met when the pesticide is used according to the label. Outcomes of a re-evaluation can be:

- no change to the registration
- amendments to the label (e.g., changes to personal protective equipment requirements, restricted entry intervals, buffer zones)
- modifications to existing Maximum Residue Limits (MRLs)
- elimination or phasing-out of certain uses or formulations
- removal of the registration

**The pesticide label is a legal document.** It prescribes how the pesticide can be legally used. Labels for all registered pesticides are under "Search Pesticide Labels" on the PMRA website at [www.healthcanada.gc.ca/pmra](http://www.healthcanada.gc.ca/pmra). Ensure you have the most current label and are aware of any re-evaluation decisions.

## Regulation of Pesticides in Ontario

The Ministry of the Environment and Climate Change (MOECC) is responsible for regulating the sale, use, transportation, storage and disposal of pesticides in Ontario. Ontario regulates pesticides by placing appropriate education, licensing and/or permit requirements on their use, under the *Pesticides Act* and Regulation 63/09. All pesticides must be used in accordance with requirements under the *Pesticides Act* and Regulation 63/09, which are available on the e-laws website at [www.ontario.ca/e-laws](http://www.ontario.ca/e-laws) or by calling ServiceOntario at 1-800-668-9938 or 416-326-5300.

### Classification of pesticides

Before a federally registered pesticide can be sold or used in Ontario, it must be classified under the provincial *Pesticides Act*. The Ontario pesticide classification system consists of 11 classes. Ontario's Pesticides Advisory Committee (OPAC) is responsible for assessing new pesticide products and recommending to the MOECC the classification of these products. Pesticide products are classified on the basis of their toxicity, environmental and health hazard, persistence of the active ingredient or its metabolites, concentration, usage, federal class designation (e.g., domestic, commercial, restricted) and registration status. The provincial classification system provides the basis for regulating the distribution, availability and use of pesticide products in Ontario. Once approved by the MOECC, classified products are posted on the MOECC website at [www.ontario.ca/pesticides](http://www.ontario.ca/pesticides).

## Certification and Licensing

### Growers and their assistants

Growers must be certified through the Grower Pesticide Safety Course in order to buy and use Class 2 and 3 pesticides on their farms. They do not require this certification to use Class 4, 5, 6 or 7 pesticides. For information about certification for growers and training for assistants to growers, visit the Ontario Pesticide Education Program website at [www.opep.ca](http://www.opep.ca) or call 1-800-652-8573.

### Commercial applicators (exterminators) and their assisting technicians

For more information about exterminator licensing and technician training, visit:

- the Ontario Pesticide Training and Certification website at [www.ontariopesticide.com/index.cfm/home-page](http://www.ontariopesticide.com/index.cfm/home-page) or call 1-888-620-9999 or 519-674-1575
- the Pesticide Industry Council website at [www.hort-trades.com](http://www.hort-trades.com) or call 1-800-265-5656 or email [pic@hort-trades.com](mailto:pic@hort-trades.com)
- the Pesticide Industry Regulatory Council (PIRC) at [www.oipma.ca](http://www.oipma.ca)

### Exception for golf courses, specialty turf and tree care specialists

For information about requirements under the *Pesticides Act* and Regulation 63/09, for golf courses and other excepted uses for turfgrass, including mandatory golf course IPM accreditation, go to [www.ontario.ca](http://www.ontario.ca) and search for:

- Pesticides and Golf Courses
- Specialty Turf and Specified Sports Fields

For more information about requirements in the *Pesticides Act* and Regulation 63/09 for the exception regarding the use of pesticides to maintain the health of trees, go to [www.ontario.ca](http://www.ontario.ca) and search for:

- Tree Care Specialists

### For more information about pesticide regulations, certification and licensing, see:

- Inside front cover of this publication
- Pest Management Regulatory Agency (PMRA) website: [www.healthcanada.gc.ca/pmra](http://www.healthcanada.gc.ca/pmra)
- PMRA Pest Management Information Service: 1-800-267-6315 (from within Canada) or 1-613-736-3799 (from outside Canada)
- Ontario Ministry of the Environment and Climate Change (MOECC) website: [www.ontario.ca/pesticides](http://www.ontario.ca/pesticides)
- Regional MOECC Pesticides Specialist (See Appendix B. *Ministry of the Environment and Climate Change – Regional Contact Information*, on page 153.)
- Ministry of Agriculture, Food and Rural Affairs (OMAFRA) website: [www.ontario.ca/omafra](http://www.ontario.ca/omafra)
- Ontario Pesticide Education Program (University of Guelph, Ridgetown Campus) website: [www.opep.ca](http://www.opep.ca)
- Ontario Pesticide Training & Certification website: [www.ontariopesticide.com/index.cfm/home-page](http://www.ontariopesticide.com/index.cfm/home-page)
- Pesticide Industry Council website at [www.hort-trades.com](http://www.hort-trades.com)
- IPM Council of Canada website: [www.ontarioipm.com](http://www.ontarioipm.com) or [www.ipmcouncilcanada.org](http://www.ipmcouncilcanada.org)
- Pesticide Industry Regulatory Council (PIRC) at [www.oipma.ca](http://www.oipma.ca)

## Pesticide Application Information

When you decide to use a pesticide, choose the most appropriate formulation and application method for your situation. Use only properly calibrated sprayer equipment. Choose less toxic and less volatile alternatives when possible. Take all possible precautions to prevent the exposure of people and non-target organisms to the pesticide. Read the most current pesticide label thoroughly before application. The label provides important information, such as:

- directions for use (e.g., rates of application, crops/sites it can be used on, target pests, crop rotation restrictions, total number of applications, droplet size/nozzle type, application equipment, timing, appropriate weather conditions)
- required personal protective equipment (PPE)
- hazard symbols and warnings
- restricted entry intervals

- buffer zones
- precautionary statements
- steps to be taken in case of an accident
- disposal

For more information on hazards, consult the Material Safety Data Sheet (MSDS) or contact the manufacturer.

**For more information on pesticide application, see:**

- OMAFRA Factsheet *Calibrating Airblast Sprayers*
- OMAFRA Factsheet *Adjusting, Maintaining and Cleaning Airblast Sprayers*
- OMAFRA Factsheet *How Weather Conditions Affect Spray Applications* (website only)
- OMAFRA Factsheet *Pesticide Drift from Ground Applications*
- Ontario Pesticide Education Program (University of Guelph, Ridgetown Campus) videos at [www.opep.ca/index.cfm/learning-resources/videos/](http://www.opep.ca/index.cfm/learning-resources/videos/)
- OMAFRA Agriculture and Agri-Food Canada booklet *Best Management Practices — Pesticide Storage, Handling and Application*, Order No. BMP13
- OMAFRA Factsheet *Pesticide Contamination of Farm Water Supplies — Recommendations on Avoidance, Cleanup and Responsibilities*

## Restricted entry intervals

Restricted Entry Interval (REI; also called Re-entry Period) is the period of time after a pesticide has been applied that agricultural workers or anyone else must not do **hand labour tasks** in treated areas. The REI allows the pesticide residues and vapours to dissipate to safe levels for work to be done.

Regardless of the REI, there is **no entry into the treated area for 12 hours** following the end of the application, unless you are a Certified Farmer or Licensed Commercial Applicator (exterminator) entering the treated area to perform short-term tasks, wearing the proper personal protective equipment and respirator.

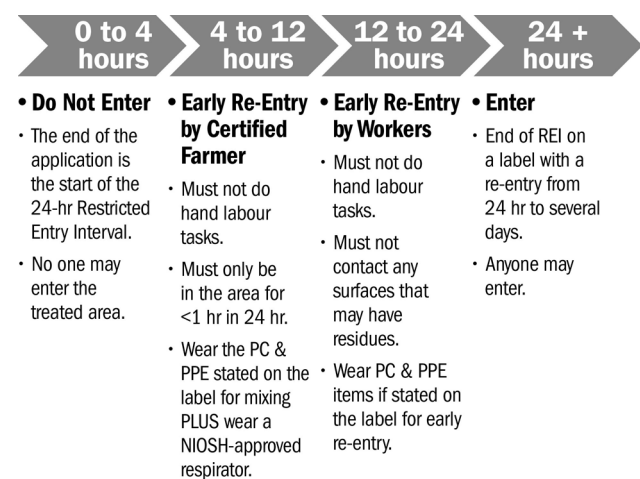
An REI can range from 12 hours to several days. A pesticide label may state different REIs that are specific to a crop and post application task (e.g., scouting, harvesting). If the REI is not stated on a

label for agricultural crops, use a 12 hour REI. For golf courses and residential turf applications, the spray solution must be dry before entry can occur.

Hand labour tasks involve substantial worker contact with treated surfaces such as plants, plant parts or soil. Examples of these activities include planting, harvesting, pruning, detasseling, thinning, weeding, scouting, topping, sucker removal, mowing, roguing, and packing produce into containers in the field or greenhouse. You can only do these tasks after the REI has passed. Hand labour generally does not include operating, moving or repairing irrigation or water equipment, except for hand-set irrigation.

A Certified Farmer or Licensed Commercial Applicator (i.e., a holder of the appropriate Exterminator License, such as an Agriculture Exterminator Licence or a Greenhouse/Interior Plant Exterminator Licence), may need to re-enter a treated area to do short-term tasks before the end of the REI. In these cases, the Certified Farmer or Licensed Commercial Applicator may re-enter 4 hours after the application wearing a NIOSH-approved respirator and any other protective clothing and the personal protective equipment stated on the label for mixing and loading. This Certified Farmer or Licensed Commercial Applicator (exterminator) must not be in the treated area during the REI for more than a total of 1 hour in any 24 hour period.

**Figure 1-1.** Example of a 24 hour REI on a pesticide label.



### Days to harvest intervals for food crops (pre-harvest, pre-grazing and feeding intervals)

These intervals state the minimum time that must pass between the last pesticide application and the harvesting of the crop or the grazing and cutting of the crop for livestock feed. If you harvest a crop before the pre-harvest interval (PHI) has passed, there may be pesticide residues in excess of the maximum residue limits (MRLs) set by PMRA.

“Up to the day of harvest” means the same as 0 days PHI; however, the REI may be more restrictive (e.g., a 12-hour restricted entry interval) and must be observed for harvesting that occurs on the day of pesticide application.

**To avoid exceeding the maximum residue limits, always follow the directions on the label.**

### Buffer zones

Buffer zones, or no-spray areas, are areas left untreated to protect an adjacent sensitive area, such as sensitive terrestrial and aquatic habitats. Generally, a buffer zone is the downwind distance separating the point of direct pesticide application from the nearest boundary of a sensitive habitat.

Leave a suitable buffer zone between the treatment area and adjacent sensitive area. Buffer zones may vary depending on the method of application (e.g., aerial, field boom, air blast). Check the pesticide labels for buffer zone requirements.

**Sensitive terrestrial habitats** include hedgerows, grasslands, shelterbelts, windbreaks, forested areas and woodlots.

**Sensitive freshwater habitats** include lakes, rivers, streams, creeks, reservoirs, marshes, wetlands and ponds.

Health Canada’s PMRA has an online spray drift calculator that allows applicators to modify the buffer zones specified on the product label based on weather conditions, the category of the spray equipment and the droplet size. For more information, see the Buffer Zone Calculator at [www.bc-sc.gc.ca/cps-spc/pest/agri-commerceldrift-derivelcalculator-calculatrice-eng.php](http://www.bc-sc.gc.ca/cps-spc/pest/agri-commerceldrift-derivelcalculator-calculatrice-eng.php).

#### Setback Distances for Water Bodies

It is an offence under the federal *Fisheries Act* to introduce into water any material that may be harmful to fish or fish habitat. To protect these waters, applicators must determine a suitable setback distance between the area to be protected and the area where pesticide treatments are planned (if the setback distance is not specified on the pesticide label). The protected area includes the water body as well as adjacent riparian (riverbank) areas that contribute to fish food and habitat.

## Protect the Environment

### Protect water sources

According to the British Crop Protection Council (BCPC), 40–70% of surface water pesticide contamination comes from mixing and filling areas.

Where possible, load or mix pesticides on impermeable surfaces located safely away from watercourses or environmentally sensitive areas. Collect drainage and run-off and dispose of it safely (*Your Guide to Using Pesticides*, BCPC 2007).

Clean your spray equipment away from wells, ponds, streams and ditches. Apply the diluted rinse water (usually at a ratio of 10:1) to the treatment area (crop), but do not exceed the pesticide rate recommended on the label.

Do not make a direct connection between any water supply (e.g., public supply, wells, watercourse or pond) and a spray tank. Use an anti-backflow device or intermediate system to prevent back-siphoning that could contaminate the water supply.

Immediately contain and clean up any spills to prevent contamination to water sources.

Check the pesticide label for specific instructions on protection of water sources.

**For more information on protecting water sources, see:**

- OMAFRA Factsheet *Pesticide Contamination of Farm Water Supplies — Recommendations on Avoidance, Cleanup and Responsibilities*
- OMAFRA Factsheet *Groundwater — An Important Rural Resource: Protecting the Quality of Groundwater Supplies*
- OMAFRA Agriculture and Agri-Food Canada booklet *Best Management Practices — Pesticide Storage, Handling and Application*, Order No. BMP13

## Bee poisoning

Honeybees, native bee species and other pollinating insects are important pollinators for many Ontario crops. Insecticides, some of which may negatively affect bees, require careful management to achieve both pollination and insect control. Growers and licensed commercial applicators can protect bees by following these suggestions:

- Time insecticide applications to minimize bee exposure (e.g., apply post bloom). Daytime treatments, when bees are foraging, are most hazardous. Insecticide applications in the evening are the safest, unless there is evidence of a strong temperature inversion. Under normal circumstances, spraying after 8 pm allows the spray to dry before the bees are exposed to it the next day. Early morning is the next best time, but spraying should be completed well before 7 am. While honeybees and most other pollinating insects do not usually forage at temperatures below 13°C, bumblebees do. If you plan to spray in the morning, contact beekeepers who have bees within 5 km of your crop and spray site. The beekeepers may then have the option of taking any possible protective action.
- Do not apply insecticides while fruit trees are in bloom. The *Bees Act* makes it an offence to do so in Ontario. Do not spray any flowering crop on which bees are foraging.
- To prevent drift toward nearby hives, do not apply insecticides on windy days or when there is evidence of a strong temperature inversion.
- Bees and other pollinators may be poisoned by visiting flowering weeds, trees and cover crops that have come into contact with an insecticide via spray drift or drift of insecticide-contaminated dust during planting. Avoid spray drift to flowering weeds that are adjacent to or within the target field. Where possible, mow down flowering cover crops or flowering weeds in and bordering target fields prior to spraying to help safeguard the bees. Control dandelions and other flowering weeds within fields before spraying it or planting seeds treated with an insecticide. Take measures to reduce movement of dust from insecticide seed treatments to flowering trees, weeds and water sources that are in or adjacent to the target field. See the *Field Crop News* blog at [fieldcropnews.com](http://fieldcropnews.com) for current information on ways to reduce dust movement.
- Systemic insecticides may also pose a high risk to bees and other insect pollinators. Bees can be exposed to insecticide residues in or on flowers, leaves, pollen, nectar and/or surface water. Do not apply insecticide or allow it to drift onto blooming crops or off-site habitat if bees are foraging in or adjacent to the treatment area.
- Beekeepers should remove honeybee colonies as soon as pollination is complete in the crop and before any insecticides are applied post bloom. If the colonies cannot be removed in time, beekeepers can place burlap or cloth soaked in water at the entrance of the hive to disrupt the flight of the bees for up to 12 hours and provide more time for spray to dry. To help prevent overheating of the hive during this time, keep an opening of 2.5 cm on each side of the hive entrance so bees can still get out and ventilate the hive. Also, the water on the burlap or cloth will help cool the colony.
- If there is a risk of honeybee poisoning, try to choose an insecticide that is not highly toxic to bees. When there is a choice, choose a product formulation that is less hazardous to bees.
- Always read the most current label for guidance.



- Before applying a pesticide or planting with insecticide-treated seed, advise local beekeepers so they can move colonies out of the danger area, if this is an option. Contact information for the local beekeepers' association in your area can be found on the Ontario Beekeepers' Association website at [www.ontariobee.com/community/local-beekeepers-associations](http://www.ontariobee.com/community/local-beekeepers-associations). Other ways to find your local beekeepers are to contact the Provincial Apiarist at 1-888-466-2372, ext. 63595 or see [www.ontario.ca/crops](http://www.ontario.ca/crops) and click "Apiculture" and then "Bee Inspectors" for a list of provincial bee inspectors who know the local beekeepers.

## Manage drift

Pesticide drift is the aerial movement and unintentional deposit of pesticide outside the target area. Drift results in wasted product and may compromise crop protection and also may adversely affect nearby sensitive environmental areas, crops and wildlife.

The following strategies can help reduce the risk of pesticide drift:

- Do not spray when wind speeds are high or gusty. These conditions increase the potential for spray and vapour drift. Check pesticide labels for allowable wind speeds for spraying applications. However, not all labels provide this specific information.
- Constantly monitor wind conditions during spraying using a good-quality wind meter. Record the wind speed and direction. As wind conditions change, you may need to make adjustments to further reduce the drift potential, such as increasing water volume, minimizing nozzle-to-target distance, changing nozzle technology, changing fields because of surrounding influences or stopping spraying until conditions improve.
- Do not spray during periods of dead calm. Periods of dead calm may occur in early morning or late evening, at which time the temperature is usually cooler and the relative humidity is typically higher, which can result in the spray droplets remaining aloft, like fog. When the wind picks up, these spray droplets can move away from the target area, possibly causing injury to adjacent non-target areas. Off-target drift in calm conditions can occur hours after the spray event was completed.

Temperature inversions create problems for spray applicators because pesticide spray can:

- stay concentrated for long periods over the target
- move with the cool air over considerable distances when the breeze picks up
- move down slopes and concentrate in low-lying regions
- drift unpredictably as the inversion dissipates during the morning

Field air temperatures are often very different from local or regional forecasts, so the most reliable method of detecting inversion conditions is to measure temperatures at, and several metres above, the ground. Spray applicators can recognize a temperature inversion when:

- there is a big difference between the daytime and nighttime temperatures
- early evening and nighttime wind speeds are considerably less than during the day
- sounds seem to carry further
- odours seem more intense
- daytime cumulus clouds collapse toward evening
- overnight cloud cover is 25% or less
- mist, fog, dew or frost occur
- smoke or dust hangs in the air and/or moves laterally in a sheet.

Temperature inversions start to form 3 hours prior to sunset, become stronger as the sun sets and continue until sunrise when the surface warms and air mixing begins. **If you suspect there's an inversion, then don't spray. Often, warnings for the risk of inversions are stated right on the product label.**

- Use the sprayer output specified on the pesticide label.
- Use a nozzle that will produce the droplet size specified on the pesticide label or delivers droplets appropriate for the job. Nozzles that produce fine droplets are rarely, if ever, required.

- Where practical, use air induction/venturi nozzles, which significantly reduce drift compared to conventional nozzles.
- Check the height of the boom to the target or distance from airblast boom to the target. Minimize the distance as much as possible while still maintaining spray uniformity.
- Establish buffer zones for the protection of adjacent sensitive areas. Some pesticide labels will state buffer zone setbacks; follow these carefully.
- Use spray plume protection where practical or available (hoods, shrouds, screens or air curtains).
- Use drift-reducing adjuvants in the spray tank as directed on the label. Mechanical or hydraulic agitations have been shown to reduce the effectiveness of certain drift-reducing adjuvants. Be aware that certain combinations of anti-drift adjuvants and air-induction/venturi nozzles have been shown to increase the incidence of fine droplets that will drift.
- When possible, use non-volatile pesticide formulations or products.

**For more information about spray drift, see:**

- OMAFRA Factsheet *Pesticide Drift from Ground Applications*
- OMAFRA Agriculture and Agri-Food Canada booklet *Best Management Practices — Pesticide Storage, Handling and Application*, Order No. BMP13
- Ontario Pesticide Education Program (University of Guelph, Ridgetown Campus) videos *How to Manage Spray Drift and Spray Drift Reduction Through Air Induction*, available at [www.opep.ca/index.cfm/learning-resources/videos/chapter-18-drift-of-pesticides/](http://www.opep.ca/index.cfm/learning-resources/videos/chapter-18-drift-of-pesticides/)

## Pesticide Disposal

### Empty pesticide containers up to 23 L

Never re-use empty containers.

The Ontario Empty Pesticide Container Recycling Program, an industry-led program, is available free of charge to growers and commercial applicators. Through this program, you can return triple-rinsed or pressure-rinsed plastic pesticide containers up to 23 L to container collection depots located throughout the province. Remove the cap and booklet from the pesticide container before recycling. To locate the closest container collection depot, visit [www.cleanfarms.ca](http://www.cleanfarms.ca), call your local dealer, or contact CleanFARMS at 416-622-4460 (toll-free at 877-622-4460) or [info@cleanfarms.ca](mailto:info@cleanfarms.ca).

Please note that starting in 2013 this program now includes liquid fertilizer containers up to 23 L in size.

### Empty pesticide containers greater than 23 L

Growers and commercial applicators can return pesticide containers that are greater than 23 L in size. Contact your local dealer for details on disposal of these containers, or contact CleanFARMS at 416-622-4460 (toll-free at 877-622-4460) or [info@cleanfarms.ca](mailto:info@cleanfarms.ca).

### Surplus spray mix

The best approach is to plan the spray job accurately to avoid creating a surplus.

When this is unavoidable, dispose of excess spray mix by spraying it on other crops that require an application of this pesticide. Before spraying, check the label to make sure the pesticide is registered for use on that other crop.

If you cannot find another allowable crop to spray, then dilute the remaining spray mix by adding 10 parts of water for each 1 part of spray mix. The diluted solution can be safely applied to the original treated area as long as you do not exceed the pesticide rate recommended on the label. Be sure to check the label for any restrictions about crop rotation, days to harvest or disposal of surplus spray mix.

Never re-spray the treated field with undiluted spray mix. Spraying an area twice at the same pesticide rate will double the labeled pesticide rate. This may cause illegal pesticide residues in the harvested crop or harmful residues in the soil that can cause crop damage.

### Surplus pesticide disposal

Be sure to safely dispose of pesticides that you do not need or cannot use. Options for proper disposal include:

- Contact the supplier. It is sometimes possible to return unused pesticide if it is still in its original, unopened container.
- Hire a waste hauler who is licensed under Part V of the *Environmental Protection Act* to carry hazardous wastes. Look in the Yellow Pages of your telephone directory under Liquid Waste Removal.
- CleanFARMS operates a free Obsolete Pesticide Collection Program throughout the province every three years. To locate the closest collection point and date, visit the CleanFARMS website ([www.cleanfarms.ca](http://www.cleanfarms.ca)), contact CleanFARMS at 416-622-4460 (toll free at 877-622-4460) or [info@cleanfarms.ca](mailto:info@cleanfarms.ca) or contact your local dealer for program details.
- Contact your municipality to see if any waste collection days are scheduled and verify whether quantities of agricultural pesticides will be accepted.

## Storing Pesticides

Ontario's *Pesticides Act* and Regulation 63/09 provide details on storage requirements for pesticide storage facilities. As shown in Table 1–1, the storage requirements that must be followed are dependent on which classes of pesticides you store.

**Table 1–1.** Requirements for Pesticide Storage Facilities

Storage requirements	Pesticide Classes			
	Class 2	Class 3	Class 4, 5 & 7	Class 6
No contact with food or drink	YES	YES	YES	YES
Not an impairment to health and safety	YES	YES	YES	NO
Clean and orderly	YES	YES	YES	NO
Warning sign G posted*	YES	YES	YES	NO
Emergency telephone numbers posted**	YES	YES	YES	NO
Vented to outside	YES	YES	NO	NO
Limited access (locked)	YES	YES	NO	NO
No floor drain	YES	YES	NO	NO
Respiratory protection and protective clothing kept readily available	YES	YES	NO	NO
Area used primarily for pesticides	YES	NO	NO	NO

Note: Sufficient precautions are needed in your storage area to prevent the pesticide from entering the natural environment. Ensure your floor drain does not enter the natural environment.

\* Refer to MOECC's website [www.ontario.ca/pesticides](http://www.ontario.ca/pesticides) for requirements for warning sign G. These signs can be purchased from your pesticide dealer/vendor.

\*\* Emergency contact numbers must include telephone numbers for the local fire department, hospital and poison control centre. The number for the MOECC Spills Action Centre (1-800-268-6060) should also be readily available.

### For more information about storing pesticides, see:

- OMAFRA *Factsheet Farm Pesticide Storage Facility*
- OMAFRA Agriculture and Agri-Food Canada booklet *Best Management Practices — Pesticide Storage, Handling and Application*, Order No. BMP13
- Ontario Pesticide Education Program (University of Guelph, Ridgetown Campus) *Grower Pesticide Safety Course Manual*, available at [www.oep.ca](http://www.oep.ca). Select "Learning."



## Pesticide Spills

If a pesticide spill causes, or is likely to cause, an adverse effect that is greater than that which would result from the proper use of the pesticide, you must notify the Ministry of the Environment and Climate Change Spills Action Centre at 1-800-268-6060 (24 hours a day, 7 days a week) and your municipality.

A spill is defined as a discharge of pollutant that is abnormal in quality or quantity, from or out of a structure, vehicle or other container into the environment. An incident such as an overturned pesticide sprayer that results in the loss of the spray solution to the environment is an example of a spill. A pesticide container that ruptures and leaks its contents is another example of a spill. The discharge or spraying of a pesticide in an unapproved area is also considered a spill.

Before you begin to clean up a spill of any nature, remember to protect yourself against pesticide exposure. Wear the proper protective clothing and personal protective equipment. If the spill occurs inside an enclosed area (e.g., a pesticide storage area or a vehicle during transport), ventilate the area first. Once you have protected yourself and removed other persons or animals from the spill site, take additional measures to stop the spill at the source and prevent it from spreading and/or contaminating watercourses. Specific precautions, emergency contact information and first aid procedures may be found on the label.

For minor spills, it may be possible to rectify the problem:

- **For a liquid spill** — Cover the spill with a thick layer of absorbent material such as kitty litter, vermiculite or dry soil. Sweep or shovel the material into a waste drum and dispose of the contents as you would a hazardous waste.
- **For a dust, granular or powder spill** — Sweep or shovel the material into a waste drum and dispose of the contents as you would a hazardous waste.

For major spills, it is essential to stop the spill from spreading.

The cleanup guidelines above may not be appropriate for all spill situations. Once you have contained the spill, follow directions from the manufacturer and regulatory authorities on cleaning the contaminated area.

### For information on preventing spills, see:

- OMAFRA *Factsheet Ways to Avoid Pesticide Spills*
- OMAFRA Agriculture and Agri-Food Canada booklet *Best Management Practices — Pesticide Storage, Handling and Application*, Order No. BMP13
- Ontario Pesticide Education Program (University of Guelph, Ridgetown Campus) *Grower Pesticide Safety Course Manual*, available at [www.opep.ca](http://www.opep.ca). Select "Learning."

**For pesticide poisonings and pesticide injuries, call: Poison Information Centre:  
1-800-268-9017 (TTY)  
1-877-750-2233  
For more information, see  
Emergency and First Aid  
Procedures for Pesticide  
Poisoning on the inside  
back cover.**

