

# Disposal of Pesticide Waste

## FACTS AT YOUR FINGERTIPS

March 2008

To ensure the environment is protected, pesticides and pesticide waste must be disposed in an appropriate manner.

### Pesticide containers

Albertans can take empty and rinsed non-returnable plastic and metal pesticide containers to approved pesticide container collection sites across the province. These sites are listed in the *Guide to Crop Protection with Chemicals* published by Alberta Agriculture and Rural Development and on Alberta Environment's website. Information regarding the operation of container collection sites is available through municipal offices (contact the Agricultural Fieldman). Empty pesticide containers are collected through an pesticide industry stewardship program, processed and recycled or used for heat (energy) recovery.

There are approximately 100 permanent pesticide container collection sites located throughout the province to collect empty and rinsed non-returnable plastic and metal pesticide containers. The sites are not to be used for the disposal of pesticide concentrate or other refuse. Empty bags that contained granular pesticides contaminated cardboard packaging or plastic liners should be disposed at a Class II landfill. Clean cardboard boxes and container booklets should be recycled.

### Leftover pesticide tank solutions and rinsate

Excess pesticide solution and tank rinsate can be disposed of by using the solution as mix water in spraying operations or it can be re-sprayed over a treatment area provided that label application rates are not exceeded and that use is in accordance with label.

### Treated seed

The Disposal of Treated Seed fact sheet provides information about disposing of seed or grain that has been treated or mixed with a pesticide. The Waste Management Guidelines for Commercial Seed Protectant Services fact sheet has information about minimizing and managing wastes for businesses that apply commercial seed protectants. These documents are available from Alberta Environment regional offices or at [www.environment.alberta.ca](http://www.environment.alberta.ca).

### Unwanted/unusable pesticide concentrates

The most economical method for disposing of pesticide concentrates is to use the concentrate according to label directions. If the pesticide has no further use, another qualified user may be found.

Pesticides must be stored properly according to provincial regulations and industry standards. Label directions usually indicate if a pesticide's effectiveness or formulation degrades from freezing or heating.

In some instances, it may be necessary to dispose of a pesticide that is no longer effective, suitable or registered for use.

### Hazardous waste classification

Most commercial pesticide concentrates intended for disposal will be classified as hazardous waste according to the following provincial hazardous waste criteria:

- Poisonous or Toxic Substances (Class 6)
  - with an oral LD<sub>50</sub> of 5,000 mg/kg
  - with a dermal LD<sub>50</sub> of 1,000 mg/kg;
- Flammable Substances (Class 3) having a flash point at a temperature less than 61°C;
- Toxic Leachate (Class 9). Leachate concentration in excess of values listed in the table included at the end of this factsheet.

The following exemptions apply:

- Pesticide waste amounts less than five litres or five kilograms generated in any month (hazardous waste in excess of five litres or five kilograms cannot be sub-divided into several months to qualify for this exemption);
- Pesticide wastes where products carry a federal DOMESTIC label classification.

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### Materials containing pesticides

Waste materials (e.g., sawdust, kitty litter) containing pesticides resulting from pesticide spills are considered hazardous waste if the leachate extracted from the material (using standardized tests) contains pesticide residues that exceed specified limits. Hazardous waste leachate testing must be done by qualified environmental laboratories.

If materials are heavily contaminated with pesticide residues, or the pesticide residues are highly leachable and disposal amounts are relatively small, it may be more economical to skip the leachate testing and manage the materials as hazardous waste.

### The five kilogram hazardous waste exemption for wastes generated in any one month applies to pesticide waste materials as well as pesticide concentrates.

Pesticide residues in soil (in excess of label application rates) can result when equipment fails or vehicle accidents. The preferred method of managing pesticide residues in soil is to encourage the in-situ decomposition of residues through cultivation and fertilization. If in-situ remediation is not feasible due to the type of pesticide, residue concentration, land area or environmental concerns, the soil will have to be excavated and disposed as hazardous waste.

Accidents involving pesticide release into the environment must be reported to Alberta Environment (1-800-222-6514) to ensure proper clean-up and remediation.

### Waste treatment and disposal

Hazardous waste treatment facilities require an approval from Alberta Environment. Anyone accepting or transporting hazardous waste must have a Personal Identification Number (PIN) as a Hazardous Waste Carrier. Anyone generating hazardous waste (except farmers through crop production) in excess of the five litre or five kilogram exemption must obtain a PIN as a hazardous waste generator prior to removing waste. These authorizations are issued by Alberta Environment.

Copies of the *Environmental Protection and Enhancement Act* and its regulations are available from the Queen's Printer at [www.qp.gov.ab.ca](http://www.qp.gov.ab.ca).

Questions about pesticide regulations may be directed to an Alberta Environment office:

**Grande Prairie 780-538-5351**  
Room 1701, Provincial Building  
10320 - 99 Street  
Grande Prairie, Alberta T8V 6J4

**Edmonton 780-427-7614**  
Twin Atria Building  
#111 4999-98 Avenue  
Edmonton, Alberta T5K 2J6

**Spruce Grove 780-960-8600**  
250 Diamond Avenue  
Spruce Grove, Alberta T7X 4C7

**Red Deer 403-340-7052**  
3rd Floor, Provincial Building  
4920 - 51 Street  
Red Deer, Alberta T4N 6K8

**Calgary 403-297-7602**  
2nd Floor, Deerfoot Square  
2938 - 11 Street NE  
Calgary, Alberta T2E 7L7

**Lethbridge 403-381-5511**  
2nd Floor, Provincial Building  
200 - 5 Avenue South  
Lethbridge, Alberta T1J 4C7

To be connected toll-free, dial 310-0000.