

PESTICIDE STORAGE AND HANDLING

Why should you be concerned?

A pest is any harmful or troublesome organism such as a weed, disease, insect or rodent which causes an unacceptable level of loss in crop yield and quality or may adversely affect livestock performance. Pesticides are any chemicals or biological control agents designed to kill or control a pest such as an herbicide, fungicide, insecticide, or rodenticide. Pesticides are very useful tools in agricultural production. When used correctly, they enhance livestock performance, contribute to higher crop productivity and quality, and result in an overall higher net return. However if handled, stored or applied incorrectly they pose a serious risk to humans, livestock, wildlife, and the environment.

It is important to be aware of the physical and chemical properties of the pesticides you are working with and/or store on farm. Such properties include; toxicity, degradation, volatility, solubility, adsorption, absorption and bio-accumulation. These properties combined with runoff, leaching, wind and water erosion and drift will influence the pesticides potential to harm humans, animals and/or the environment. It is imperative to read and follow the directions on the labels as they will indicate the properties of the pesticide you are using.

Soil properties such as texture, depth, permeability, slope and proximity play an important role in pesticide storage site selection. For example, fine textured (clay) soils have a higher potential for runoff, but a lower risk of leaching. However, coarse textured (sandy) soils have a lower risk for runoff and a higher potential for groundwater contamination. Slope also plays an important factor as storage sites that slope towards a watercourse pose a higher risk for contamination.

Pesticide handling requires on-farm transfer, mixing and loading of pesticides and pesticide mixtures. These activities pose the greatest risk to human safety and the environment because handlers are exposed directly to the concentrated product and this is the stage where pesticide spills are most likely to occur. An emergency response plan should be prepared in the event of a pesticide leak or spill. Spills pose the greatest risk to groundwater, surface water, fish and wildlife habitat. Spills are also a safety hazard for children, livestock, pets and wildlife.

When used improperly some pesticides can cause serious human health problems immediately (acute problems) or many years later (chronic problems). If a large quantity of pesticide enters a water supply because of a spill or backflow accident, it can cause skin rashes, nausea, eye irritations or other toxic effects that may show up after a short period of exposure. The severity of the effects depends upon pesticide toxicity and the level of exposure.

What can you do?

1. Handle pesticides carefully, especially during mixing and loading. Ensure that all personal protective clothing is used as required. Have an emergency response plan prepared so everyone knows what to do in case of a pesticide leak or spill.
2. Purchase the amount of pesticide you need for immediate application and avoid storing on farm longer than the immediate use period. In the event of unforeseen circumstances, the fewer types and amounts of pesticides stored on farm will decrease the risks of spills, leaks, fire exposure, or contamination.
3. Empty pesticide containers must be triple rinsed and rinsate disposed of properly. Unused unwanted product should be considered as hazardous waste. Facilities and programs exist in Manitoba to assist in the disposal of empty containers and unwanted product.

4. When storing your pesticides, personal safety and environmental protection must be taken into consideration along with practicality.
5. Use this worksheet to find out how well pesticides are handled and stored on your farm.
6. Contact your local GO Office for additional information and support, or other appropriate agricultural extension specialist.

