

Agriculture & Pesticides Facts

WHAT IS A PESTICIDE?

A pesticide is any product used to manage, destroy, attract or repel a pest. (A pest can be considered to be any unwanted organism, such as an insect, weed, rodent, bacterium, fungus, etc.) In Canadian legislation and regulations, pesticides are also called Pest Control Products. All pesticide products are subjected to intensive testing and screening for safety prior to their approval for use in Canada.



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Within the group of products used as pesticides, there is much diversity with respect to:

- the types of pests controlled
- their mode of action (i.e., how they control the pest)
- their risk to human health
- their potential for adversely affecting non-target organisms such as birds, fish or wildlife, or other aspects of the environment.

TYPES OF PESTICIDES

The word pesticide is often used incorrectly to refer to products for controlling insects. Pesticide is a generic term, covering all products used for controlling any kind of pest. Under the broad heading of pesticide, there are many sub-categories, including:

- herbicides for controlling one or more species of weeds
- insecticides for insects
- fungicides for fungi and moulds
- nematocides for nematodes (parasitic microscopic worms living in the soil)
- bactericides for bacteria
- algicides for algae (such as in swimming pools)
- rodenticides for mice and rats
- miticides for mites (small insects in the spider family)

Within Canada, other products that are considered pesticides include:

- insect repellants
- growth regulators (for limiting the growth of plants without otherwise adversely affecting their performance)
- wood preservatives
- disinfectants
- electronic devices for control of insects or rodents.

WHAT TYPES OF COMPOUNDS ARE USED AS PESTICIDES?

Pesticides can be categorized as **organic** or **inorganic** in nature.

Organic compounds are those that contain carbon. They can either be naturally occurring compounds derived from a living organism or they can be manufactured products. A few pesticides are naturally occurring compounds found in plants (e.g., rotenone). Others are micro-organisms, such as the bacteria, *Bacillus thuringiensis* (Bt). However, the vast majority of pesticides are manufactured organic compounds.

Inorganic compounds are those that do not contain carbon. Prior to World War II, most of the products used as pesticides were inorganic in nature. Several of these contained toxic heavy metals such as lead, arsenic or mercury. Because of the persistent risk to human health they pose, pesticides containing heavy metals have been banned. Only a very few inorganic compounds continue to be used as pesticides, and they are used only in very limited applications (e.g., ant bait).

INTERNET RESOURCES:

Fact Sheet on the Pest Management Regulatory Agency

http://www.hc-sc.gc.ca/pmra-arla/english/pdf/fact/fs_pmra-e.pdf