

# THE TRUTH ABOUT PESTICIDES

**The Quebec Poison Control Centre and the Quebec Ministry of Environment and Wildlife released statistics on pesticide poisoning in 1996. They reported a staggering 1,650 poisoning cases. 79.4% of the cases were in private homes, and 46.1% of the victims were children under age five. 31% of these cases were due to oral ingestion, and 34.9% followed a pesticide application(1).**

## **What are Pesticides?**

Pesticides (herbicides, vermicides, fungicides, and rodenticides) are poisons designed to kill insects, plants, fungi, moulds and rodents. Pesticides contain “active” ingredients (the chemicals intended to kill), and so-called “inert” ingredients. These are considered trade secrets, and although in many cases they can be even more toxic than “active” chemicals, most consumers are completely unaware they exist. Even when used as directed, pesticides have many negative side effects on human health and the environment.

## **Does “Registered” Mean Safe?**

Although pesticides used and sold in Canada are registered, this does not mean they are safe. Even the federal government regulators do not claim that registration equals safety. Pesticides are not tested in combination, although their synergistic effects may be amplified as much as 1000 times. While pesticides produce acute and long-term health effects, toxicity experiments (done on healthy animals) measure and account for only the acute effects. The pesticides that are deemed acceptable for use as a result of these tests do not take into account the possible chronic effects (2). “Acceptable” tolerance levels are set for an average adult male, and do not take into account the different situations of women and children.

## **Some Environmental Effects**

Some pesticides accumulate in the fatty tissues of mammals, amphibians, birds and fish, interfering with their growth, reproduction and behaviour. Pesticides poison the food chain, contaminate water supplies, and are implicated in the declining populations of certain species.

## **What are the Health Effects?**

Acute Effects: The Canadian Centre for Occupational Health and Safety has identified acute health effects in humans including nausea, eye, skin, respiratory and throat irritation, muscle spasms, and even death (3).

Chronic effects: Repeated exposure to pesticides has been linked to neurological problems, brain and lung cancer, immune suppression (which creates environmental hypersensitivity), leukaemia, Parkinson’s disease, kidney damage, non-Hodgkin’s lymphoma and reproductive disorders, including endocrine disruption, low sperm count, and sterility(4).

### **Children are Vulnerable**

Pound for pound of body weight, children consume considerably more pesticides than adults. Kids are especially vulnerable to the toxic effects because their metabolic systems don't process or excrete toxins the way adults' systems do. Children typically play in grass and dirt, and put toys and hands in their mouths, activities that significantly increase their exposure to pesticides.

Children from homes where pesticides are used have been found to have four times the risk of soft tissue sarcomas (cancerous growths (5)) and between six and seven times the rate of childhood leukaemia as other children (6).

### **Sweden Has Not Allowed 2,4-D Since 1989**

2,4-D is the most commonly used herbicide in Canada. It was a major component of Agent Orange, and is still used in over 1,500 lawn-care products (including Killlex and Weed 'n Feed). Cancer in dogs has been linked to their owners' use of 2,4-D (7).

“ Insects...are the most important component of the ecosystem, an integral part of the food chain...without insects the vast majority of flowering plants would not be able to reproduce. A miniscule fraction of this huge group of animals are pests to human beings....spraying powerful poisons that kill all exposed insects is no more 'management' of pest than killing everyone in New York city would be managing urban crime.” David Suzuki “ The folly of Chemical Pest Control”

### **The Pesticide Treadmill**

Once you begin to apply pesticides, your lawn can become addicted to chemical treatment. Repeated applications can cause soil to become conditioned, which speeds up degradation of the pesticides. This results in the need to apply increasingly toxic chemicals at more frequent intervals to control the pest problem. Meanwhile, beneficial organisms are killed off, soil can become sterile, and pesticide-resistant insects breed to produce a species able to withstand the toxins and continue eating your grass!

(1) Centre Anti-Poison du Quebec, Rapport annuel 1996: statistiques sur les intoxications par les pesticides, April 1997.

(2) National Coalition Against the Misuse of Pesticides, Lawn pesticide facts and figures, NCAMP, San Francisco, US, 1992.

(3) Canadian Centre for Occupational Health and Safety bulletin, Ottawa, 1990.

(4) Environment Canada, Pesticides, the right amount. Ottawa, 1989.

(5) American Journal of Public Health, “study suggests possible link of child cancer, home pesticides”. Ottawa Citizen, Feb.27, 1995.

(6) Journal of the National Cancer Institute.

(7) Hayes et al., Journal of the National Cancer Institute vol.83, 1991.