



# AFN ENVIRONMENTAL STEWARDSHIP

## RESPECTING AND PROTECTING MOTHER EARTH

# PESTICIDES



## Introduction

Pesticides destroy “pests” that may affect the growth of vegetation such as crops or lawns. Pesticides may also be used to treat animals for parasitic or fungal infections. Pesticides may be used in many different contexts, including large scale farming operations, private households, or recreational facilities, such as golf courses.

Pesticides may be categorized as:

- Insecticides – used to eliminate insects in all stages of life; heavily used in agriculture.
- Herbicides – kill unwanted plants (or “weeds”); heavily used in agriculture as well as in lawn maintenance for cosmetic purposes.
- Fungicides – kill or inhibit the growth of mould and fungi; used both in agriculture and to help fight fungal infections in animals.

Pesticides are regulated through Health Canada’s Pesticide Management Regulatory Agency (PMRA). This agency’s role is to regulate and manage the use of pesticides so as to support the agriculture, forestry and manufacturing sectors on one hand, while protecting the health and well-being of Canadians and the environment, on the other. The federal Pest Control Products Act deals with the sale and use of pesticides. On a provincial level, only Quebec and Ontario have introduced laws that ban the sale of pesticides. In Quebec, the Pesticides Management Code restricts the sale and household use of certain pesticides registered by the Pest Management Regulatory Agency. In Ontario, the Cosmetic Pesticide Ban Act, adopted in April 2009, bans the sale and use of pesticides for cosmetic (lawn) use. Over the next few years, Ontario will be placing further restrictions on the use of these products. In addition to the federal, Ontario and Quebec legislation, approximately 152 municipalities across Canada, including Halifax, Montreal, Toronto, Hamilton and Vancouver, have adopted similar pesticide bylaws.

## Challenges and Considerations

There has been much debate over the value of pesticides and their continued use in agricultural food production. Some argue that large scale production of affordable food is not possible without assistance from pesticides, as pesticides eliminate many hours of manual weeding. Those on the other side argue that the use of pesticides exposes poor farm workers in developing countries, where many of our fruits and vegetables are grown, to harmful chemicals. Compounding this

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problem is that many of these farm workers are unaware of the harm that pesticides pose to their health.

A University of Arizona team of scientists studied the health effects of industrial agricultural pesticides on the children of the Yaqui Indians in Sonora, Mexico, only a few hours south of the U.S./Mexico border. The study found that the Yaqui farm workers were carrying high levels of the pesticide toxins home with them on their clothes, inadvertently exposing their children. High levels of pesticides were found in the cord blood of newborns as well as in their mothers' breast milk. The Yaqui population was discovered to have a higher than normal incidence of serious illness, including cancers, directly related to pesticide poisoning. For some, their only supply of water came from contaminated irrigation canals. This example illustrates the broad range of effects that pesticide use can have in developing countries.

In Canada, a federal government research program, the Northern Contaminants Program (NCP), was created to evaluate the risks of contamination associated with traditional foods consumed by Aboriginal peoples. Persistent Organic Pollutants (POPs), which include many pesticides, were the main focus, and the NCP was able to prove that contaminants moved from the south to the north, ultimately affecting the traditional foods that Aboriginal peoples eat.

First Nations may be at a higher risk of exposure to pesticides than the general population because of their dependence on the land and traditional foods. Traditional uses of plants, and regular consumption of wild foods has significantly increased the rates of exposure to some chemical and biological contaminants in the environment, namely pesticides. In addition to pesticide contamination of their food supply, First Nations are exposed to pesticides in a number of other ways as well, including pesticide use in forestry, and pesticide contamination of ground water, soil and air.

In order to minimize the amount of pesticide residue ingested with food, you should **thoroughly rinse or wash food before consuming it**, regardless of whether it was purchased at the grocery store or in the bush. Other ways to reduce exposure to pesticides in food include **growing your own food** in a garden, or **buying from local farmers** with whom you are familiar.

### **For More Information**

For more information regarding pesticide use and regulation, please consult the following websites:

- Health Canada: <http://www.hc-sc.gc.ca/cps-spc/pest/index-eng.php>
- Sierra Club of Canada: <http://www.sierraclub.ca/national/programs/health-environment/pesticides/index.shtml>
- Green Communities Canada: <http://www.gca.ca/indexcms/index.php?pfn>