northern exposure

ACUTE PESTICIDE POISONINGS IN CANADA

Pesticide manufacturers want us to believe that their products are safe. Government regulators claim that pesticides sold in Canada "do not pose unacceptable risks." But by their very nature, pesticides are dangerous and experts generally agree that reducing exposure to pesticides reduces health risks. Ultimately, society must decide what level of risk is acceptable – and to do so we need information about the hazards that pesticides pose.

Unfortunately, the federal government is not systematically monitoring exposure to pesticides and the resulting health effects. This report attempts to bridge part of the information gap.

While both chronic and acute health effects are of concern, the focus of this report is on the latter. Acute pesticide poisoning occurs when an individual develops adverse health effects immediately after being exposed to a pesticide or pesticides. Exposure can be via breathing, eating, drinking, or direct contact with the eyes or skin. Acute pesticide poisoning can harm the eyes, skin, gastrointestinal tract, nervous system, respiratory system, cardiovascular system, liver, kidneys, and blood. In extreme cases death may occur (a very rare occurrence in Canada, although not in developing countries).

Pesticide exposures account for only a small per-centage of total poisonings in Canada. The two leading causes of poisoning for the population as a whole are cleaning products and cosmetics, common household items that often contain toxic substances. The leading cause of poisoning for young children is medication.[1]

This study reveals the frequency of acute pesticide poisonings in Canada, using information collected by provincial and regional authorities. We found that more than 6,000 Canadians are acutely poisoned by pesticides every year, resulting in calls to poison control centres, visits to emergency wards, and hospitalizations. Disturbingly, more than 2,800 children under the age of six suffer acute pesticide poisoning in Canada annually. That is the equivalent of more than 100 kindergarten classes or 50 school buses filled with toddlers and young children who are poisoned by pesticides in Canada every year.

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It should be noted that the actual incidence of acute pesticide poisonings is almost certainly greater than the number of cases documented by poison control centres due to misdiagnosed and unreported cases. As a result, our estimate of the number of poisonings in Canada should be considered conservative.

Annual Acute Pesticide Poisonings in Canada

PROVINCE	PESTICIDE POISONINGS	PESTICIDE POISONINGS CHILD <6 YRS	PESTICIDE POISONINGS PER 100,000 RESIDENTS
BC	436	190 (43.6%)	10
AB	1,021	461(45.2%)	30
SK	322	138 (42.9%)	33
MB	211*	98*	18*
ON	1,629$^{\Delta}$	821$^{\Delta}$ (50.4%)	13$^{\Delta}$
QC	2,096	966° (46.1%)	27
NB/NS/PEI	319	144† (45.2%)	18
NL	37	5(13.5%)	7
YT/NWT/NU	19*	9*	18*
TOTALS	**6,090**	**2,832 (46.5%)**	**18**

* Data unavailable; figures represent estimates based on national average.
$^{\Delta}$ Figure includes estimate for eastern Ontario based on historical trends.
° Data unavailable; figure represents estimate based on historical data.
† Data unavailable; figure represents estimate based on data for total poisonings.

What makes these statistics even more galling is that pesticide poisoning is an *unnecessary* hazard. Certainly in the case of so-called cosmetic pesticides (chemicals used on lawns and gardens), there is little or no real benefit derived from the risks these products pose.

The findings presented in this report highlight unacceptable gaps in our knowledge about the prevalence of acute pesticide poisoning in Canada and point to the need to reduce risks posed by pesticides. The surest way to reduce risks is to eliminate the possibility of exposure. The David Suzuki Foundation encourages individuals to avoid buying pesticides and ensure safe storage of all toxic substances in the home.

We also applaud municipal initiatives to ban so-called cosmetic pesticide use on public and private property. More than 125 municipalities have passed anti-pesticide bylaws and provincial law prohibits the sale of many lawn and garden pesticides in Quebec. (The available data on pesticide poisonings in Quebec predate this law; pesticide poisonings in the province might be expected to decline as a result of the new law.)

Most importantly, this report issues a wake-up call to federal and provincial governments, which play a crucial role in reporting and monitoring all cases of poisoning, educating Canadians about ways to reduce risks, and regulating substances that pose an unnecessary threat to health. Human health concerns must not be trumped by pesticide industry interests. The David Suzuki Foundation calls on our elected leaders to protect the well being of all Canadians – especially our children – from the harms caused by pesticides. We offer seven key recommendations, summarized below and explained in more detail in the report:

1. **Require all pesticide products to be sold in child-resistant containers to minimize risk of accidental exposure.**
2. **Increase funding to poison control centres with revenue to be raised, in part, through a special surcharge on all pesticides.**
3. **Implement a national poisoning prevention program with the following central elements:**
   - **Designation of all poisonings, including pesticide poisonings, as reportable events**
   - **Implementation of the Prod Tox program that was shelved in 2002**
   - **Creation of a national poisonings database.**
4. **Ban the use and sale of lawn and garden pesticides.**
5. **Terminate the registration of all pesticide products where the active ingredient has been banned in another OECD country because of health or environmental concerns.**
6. **Establish a national environmental health tracking system that includes pesticide poisonings.**
7. **Recognize Canadians' right to live in a healthy environment.**

[1] IWK Regional Poison Centre. 2002. Annual Statistical Report. See also W.A. Watson, T.L. Litovitz, G.C. Rodgers, Jr. et al. 2005. 2004 Annual Report of the American Association of Poison Control Centers Toxic Exposure Surveillance System.

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