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# Pest Management Regulatory Agency

## *Information Note*

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4 August 2004

### **Ontario College of Family Physicians Report**

On April 23, 2004, the Ontario College of Family Physicians (OCFP) released a literature review on epidemiology studies on pesticides. The review linked pesticides to various illnesses, and stated that children are especially vulnerable to pesticides.

In light of the public interest in this report, Health Canada's Pest Management Regulatory Agency (PMRA) prepared this document to help Canadians better understand how human health and the environment are considered by the pesticide regulatory system in Canada. PMRA is the federal regulatory body responsible for the regulation of pesticides in Canada.

#### **Pesticide Regulation in Canada**

Pesticides are stringently regulated in Canada. Before a product is registered for use, it must undergo a comprehensive and rigorous scientific assessment to ensure the product does not pose unacceptable risks to human health or the environment and to assess its efficacy to ensure that the lowest rate possible is used. If the assessment does not indicate that a product can be used safely it is not registered for use in Canada. Currently, all pesticides registered prior to 1995 are being re-evaluated by using the most modern scientific risk assessment approaches to ensure they remain safe and effective for use.

The human health risk assessment looks for the short- and long-term potential of a pesticide to cause adverse health effects such as cancer, birth defects and endocrine disruption. All sources and routes (oral, dermal, inhalation) of potential exposure are assessed, including exposure from the diet, drinking water and from contact with treated areas like lawns and gardens. As well, occupational exposures, both during and after pesticide application, are specifically considered.

Pesticides are only registered if there is a wide enough margin of safety between what people are exposed to and the highest dose that causes no effects according to scientific research.

As the OCFP report notes, some population groups, such as children and pregnant women, may be more susceptible to potential effects of pesticides. This is why PMRA assessments include the application of extra safety factors to ensure that the most sensitive sub-populations are protected. For example, the PMRA pays special attention to the unique exposures and physiological characteristics of children, ensuring that factors such as their unique behaviours, different diets and lower body weights are considered.

## Scientific Approaches to Understanding Pesticide Risk

The OCFP report is a review of epidemiology studies selected from the public scientific literature. There are many such studies published which suggest that there may or may not be associations between adverse health effects and pesticide exposure. As the report acknowledges, epidemiology studies are hard to interpret because of biases and confounding factors that make it very difficult to either establish or definitively rule out links between pesticide exposures and effects. For example, other chemical and physical environment effects are usually encountered at the same time as pesticide exposures and biases in the exposures remembered by study participants may affect the result. Without an actual exposure calculation, it is difficult to assess whether pesticides could have been responsible for an adverse health outcome.

When determining the acceptability of a pesticide, PMRA scientists critically examine the totality of the scientific database for pesticide active ingredients and end-use products, including the types of studies in the OCFP report. When new studies in the public literature are released, the PMRA examines them to determine if further regulatory action is required on the pesticides mentioned in the study.

Currently, much of the information submitted to the PMRA for pesticide risk assessments is protected under the *Access to Information Act* as confidential business information. Under the new *Pest Control Products Act*, the public will be able to view the data used in making pesticide registration decisions.

## Responsible Pest Management

The PMRA agrees with the recommendation of the OCFP report that Canadians can and should seek opportunities to minimise their exposure to and reduce their reliance on pesticides. As such, the PMRA supports Integrated Pest Management (IPM) practices. IPM is an approach that combines biological, cultural, physical and chemical tools to manage pests so that benefits of pest control are maximized and health and environmental risks are minimized.

If Canadians choose to use pesticides, they should use products only for their intended and registered use while following all instructions on the label. The label instructions specify the conditions by which products can be used safely. The PMRA also agrees that, to prevent accidents, pesticides must always be stored out of the reach of children.

The PMRA is working with provincial and territorial governments on the Action Plan for Urban Use Pesticides that includes a Healthy Lawns Strategy ([www.healthylawns.net](http://www.healthylawns.net)). This website provides information on IPM approaches to lawn and garden care. The PMRA also distributes a number of publications, including Pest Notes, that provide information on the safe use of pesticides and on controlling common household pests using the principles of IPM. These can be found on the Pest Notes page of [www.hc-sc.gc.ca/pmra-arla/](http://www.hc-sc.gc.ca/pmra-arla/), in the Responsible Pesticide Use section.



## Need more information?

The following links on the PMRA website provide further information on the topics discussed in this document:

### Risk assessment process:

#### *Fact Sheet on The Regulation of Pesticides in Canada*

[www.hc-sc.gc.ca/pmra-arla/english/pdf/fact/fs\\_pestreg-e.pdf](http://www.hc-sc.gc.ca/pmra-arla/english/pdf/fact/fs_pestreg-e.pdf)

or in HTML format: [www.hc-sc.gc.ca/pmra-arla/english/aboutpmra/about-e.html](http://www.hc-sc.gc.ca/pmra-arla/english/aboutpmra/about-e.html)

#### *Children's Health Priorities within the Pest Management Regulatory Agency (SPN2002-01)*

[www.hc-sc.gc.ca/pmra-arla/english/pdf/spn/spn2002-01-e.pdf](http://www.hc-sc.gc.ca/pmra-arla/english/pdf/spn/spn2002-01-e.pdf)

#### *A Decision Framework for Risk Assessment and Risk Management in the Pest Management Regulatory Agency (SPN2000-01)*

[www.hc-sc.gc.ca/pmra-arla/english/pdf/spn/spn2000-01-e.pdf](http://www.hc-sc.gc.ca/pmra-arla/english/pdf/spn/spn2000-01-e.pdf)

### Responsible Pest Management:

#### *Healthy Lawns Strategy*

[www.healthylawns.net](http://www.healthylawns.net)

#### *Pest Notes*

[www.hc-sc.gc.ca/pmra-arla/english/consum/pnotes-e.html](http://www.hc-sc.gc.ca/pmra-arla/english/consum/pnotes-e.html)

#### *Action Plan on Urban Use Pesticides*

[www.hc-sc.gc.ca/pmra-arla/english/pdf/hlawns/hl-ActionPlan-e.pdf](http://www.hc-sc.gc.ca/pmra-arla/english/pdf/hlawns/hl-ActionPlan-e.pdf)

