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To: Keith Chanon, Program Manager, Commission for Environmental Cooperation
Re: Comments on "Children's Health and the Environment in North America"

Dear Mr. Chanon;

On behalf of the Youth Environmental Network (YEN), I would first like to thank you for the opportunity to provide comments on your draft report. As Canada's only national network of youth environmental NGOs and individuals, YEN has an active interest in promoting participation in citizen consultations, and specifically the engagement of young people in decision making. The opportunity for young people to comment on key issues is especially important when initiatives concern the health and well-being of youth and children. As such, we are very glad to have heard about the opportunity to comment on your report and we encourage you and others to approach YEN in the future with requests for participation in your initiatives.

As staff and board members of YEN, we have the distinct privilege of being in contact with many amazing young people across Canada working on various environmental and social issues. When we heard about your report we were able to identify two young individuals with particular interest and expertise in the field of children's environmental health. I am happy to introduce to you Nicholas and Naomi vanGinkel Wilde, whose thoughtful comments on the pesticide section of your report are attached to this letter.

Nicholas and Naomi are 14 year old twins and environmental activists from British Columbia who have been inspired by their love of nature and belief in social responsibility. Their commitment to creating positive change has been deepened by experiencing the effects of harmful chemicals first hand and by living in a family with an inherited immune disorder that includes severe chemical sensitivity. Together, Nicholas and Naomi have co-founded numerous environmental youth initiatives including Y.E.S. British Columbia (Youth Environment Society), and have run extremely successful public education and pesticide reduction campaigns. They were delegates and speakers at the International Children's Conference on the environment (Victoria BC, 2002) and members of Environment Canada's Youth Roundtable on the Environment, among others.

I hope you find Nicholas and Naomi's comments, given from a unique youth perspective, useful and interesting. For your information, they recently submitted a full report of their own on health effects of pesticides to Minister Dion, which you are welcome to inquire about through YEN. Good luck with your initiative and we look forward to helping you promote environmental health for people of all ages in Canada.

Aftab Erfan
Member, YEN Board of Directors

Laura MacPherson
YEN National Coordinator

Comments on section 4.5: Pesticides
of Children's Health and the Environment in North America: A first report on
available indicators and measures. (by: Nicholas and Naomi vanGinkel Wilde)

General Comments:

In general we were fairly impressed by the report and certainly glad that such a study was undertaken. Despite the brevity and focus on monitoring as opposed to concrete protective actions, this report is an admirable attempt at an impartial look at pesticides and children's health. As well, should the steps outlined in Section 4.5.4 "Opportunities for Strengthening Indicators of Children's Exposure to Pesticides in North America" be implemented, this would be an excellent early step towards protecting our most vulnerable citizens.

Specific Comments:

- *1st paragraph, pg. 72;* Use of the phrasing "residues **on** foods" implies that perhaps these residues can be washed off; in actuality pesticide residues contaminate the entire food and cannot be simply washed from the exterior and this should be clear from the text.
- *1st paragraph, pg. 72;* Children's underdeveloped immune and detoxification systems also put them at increased risk from environmental pollutants of all kinds including and especially pesticides.
- *2nd paragraph, pg. 72;* Cumulative small dose pesticide exposures may have as many or more health effects than the more immediately recognized ones from high dose exposures. As well, the potential role of environmental toxins in inheritable diseases and transgenerational effects must be considered. See Science, Vol 308, Issue 5727, 1466-1469, 3 June 2005 Reports Epigenetic Transgenerational Actions of Endocrine Disruptors and Male Fertility Matthew D. Anway, Andrea S. Cupp,* Mehmet Uzumcu, Michael K. Skinner
- *1st paragraph, pg. 73;* Despite the limited space devoted to urban exposures, in many cases the child that spends 8 hour days in a school receiving regular pesticide treatment, then goes home to play on a lawn that has been sprayed, goes out shopping with parents and enters a sprayed building, may well be having equal or higher daily exposures to a rural child exposed to agricultural pesticides. Drift is also a concern for children whose parents live near standard agriculture. Also in many urban and rural areas aerial spraying or fogging (for mosquitoes, forestry, agricultural pests etc.) may be frequent and therefore a significant health factor.
- *2nd paragraph, pg. 73;* Of the 5 listed exposure sources only one (residues on food) is addressed in the international data with the addition of acute poisoning information from Mexico. Obviously this indicates a severe information gap which urgently needs attention.

- *Chart 4-20, pg 74 (Percentage of Sampled Fresh Fruits and Vegetables with Detectable Organophosphate Pesticide Residues, in Canada, 1995–2002) and chart 4-22, pg. 77 Percentage of Fruits, Vegetables and Grains with Detectable Residues of Organophosphate Pesticides, in the United States, 1994–2001);* Data is needed for pesticides other than organophosphates both because they are merely one group of pesticides and also because organophosphate use is widely recognized to be decreasing whereas use of many other pesticide groups is increasing. If it is not yet in place, monitoring of the more commonly used pesticides and indeed of all pesticide use should be implemented for all three countries.
- *1st bullet, pg. 77* Urine testing may not be the most accurate of testing forms; pesticides are known to be stored in body fat where they may well do more harm than those properly excreted.
- *2nd bullet, pg. 77* We strongly support the tracking of pesticide use. Even more importantly, public disclosure of use in schools, and public spaces should become a part of this process.
- *3rd Bullet, pg. 77* Health effects monitoring can only be viable when emergency room staff are trained to look for and recognize signs of both acute and cumulative pesticide exposures. Also important is public education of potential pesticide risks and disclosure of applications in public facilities. Often children may be exposed to pesticides without their parents' knowledge and toxicity may frequently be misdiagnosed or unrecognized as causative or contributory factors.
- *Throughout report:* Integration of the theories of the Precautionary Principle would be well advised. There are several instances in which “lack of scientific proof” is unduly highlighted. For example, detection of residues of a substance even *suspected* of adverse effects in the blood, bodily tissues or excretions of a physiologically vulnerable infant *does* equal health risk. At this point, surveillance and monitoring of pesticide use and health effects is simply not enough. Evidence of pesticide health risks has been observed since the 1960's; concrete measures must be taken to protect children from potential toxins. As the “Precautionary Principle” states: “*When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically.*”