

Comments on Nova Scotia Government's Bill 61

Non-essential Pesticides Control Act

Law Amendments Committee

May 10, 2010

Helen Jones

I strongly support the Nova Scotia government initiative to implement a **provincial ban on nonessential lawn care pesticides**. Congratulations for addressing this issue. Nova Scotia has one of the highest cancer incident rates in Canada. Many landscape pesticide products contain dioxins, one of the most potent carcinogens known. Other landscape pesticides contain arsenates and other heavy metals, as well as estrogen mimics, and mutagenic components. These carcinogens, neurological and reproductive poisons all have been shown to have the potential to cause a wide range of cancers, as well as to damage the genetic makeup of many individuals for generations to come. Decisive action is needed to remove landscape pesticides from retail store shelves, from the reach of commercial lawn care companies, and also to educate businesses and the public on simple and safer methods of caring for landscapes.

Health care costs are crippling our provincial budgets, more so each year, and the situation is likely to reach a critical state when federal/provincial transfer payments are soon to be renegotiated, payments almost certainly to be sharply cut. Few elected officials appreciate the enormous potential for pesticide-free communities to change this picture and lower these expensive and frightening health care statistics. Nova Scotia could become a leader in showing the rest of Canada the way out of this quagmire. We must take prudent action now.

I strongly encourage the Nova Scotia government to take the following essential steps:

A. Ban the sale and use of all synthetic chemical pesticide products throughout the province. I hope you will do so using regulations that are comprehensive, and the most protective of public health. Everything depends on how you interpret the four inclusions of the phrase "except as prescribed by the regulations." Please do not include members of the lawn care industry on the committee that makes these decisions this summer. These policy decisions should be made objectively by individuals with no profit motive. The lawn care industry frequently claims that Canada's federal government is doing a good job regulating pesticides. Nothing could be farther from the truth.

The Pest Management Regulatory Agency has very close ties with pesticide lobby groups such as CropLife and their subdivision, The Urban Pest Management Council (lobbyists for lawn sprayers across Canada). Against the advice of our federal Members of Parliament, lobbyists from these and

other industry bodies sit on advisory committees for the PMRA. The House of Commons Standing committee on Environment and Sustainable Development urged the PMRA in May of 2000, to dissolve their Economic Management Advisory Committee. See "Pesticides, Making the Right Choice For the Protection of Health and the Environment," Federal Report from the Standing Committee on Environment and Sustainable Development (<http://www.parl.gc.ca/InfocomDoc/36/2/ENVI/Studies/Reports/envi01-e.html>), p. 150). After a decade, the PMRA has not yet acted on this advice. Promoting Integrated Pest Management (IPM), a pesticide industry sponsored business scheme that relies on the continued use of pesticides, is just one of the many industry-friendly policies the PMRA supports.

B. I urge you not to include Integrated Pest Management (IPM) anywhere in the legislation, or make any reference to it. IPM is a kind of "green washing," an industry managed business model which is not sufficiently protective of public health because underneath a quantity of green rhetoric and glossy brochures it allows the continued use of pesticides whenever landscapers chose to apply them. It also discriminates against small landscape companies that cannot afford the large annual fees required by the Landscape Ontario body that hands out their "certification" label.

IPM can also lead to *increased* pesticide use, as it did in Calgary and Ottawa (see attachments). Correcting this misguided policy decision can also be time consuming. When London, Ontario, put IPM in place, they had to go back and correct this error later. Toronto had the same experience. We can avoid these difficulties and inefficiency by doing things right the first time.

References to IPM in the Nova Scotia Environment Act (sections 81a and 81b) *should be removed* because IPM is a pesticide industry initiative which is not adequately protective of human and environmental health. References to IPM on the Nova Scotia Environment website should be replaced with organic standards. See <http://www.gov.ns.ca/nse/pests/ipm.asp>.

The NS government online IPM information even directs the reader to pesticide use (see "Frequently Asked Questions"):

**"Chemical Control In most cases, pesticides are used as a backup in an IPM program. Pesticide treatments are made when monitoring shows that preventive measures have not kept pest populations below the threshold level and other pest control methods such as physical or biological controls are either not available or not appropriate for use in the situation. ..."**  
**<http://www.gov.ns.ca/nse/pests/ipmfaq.asp>**

Organic methods and standards represent more sustainable and responsible pest management, offering the protection that Canadian communities and children deserve.

C. Adopt the best features of the provincial pesticide codes approved by Quebec and Ontario, and avoid the weak legislation recently adopted by PEI and New Brunswick.

D. Broaden Bill 61 to include residential vegetable gardens, adequate buffer zones around drinking water wells, pesticide treatments on patios, walkways, driveways and soil near foundations. Drift from pesticide use in these areas can still harm nearby residents and drinking water resources.

E. Follow Quebec's example and maintain the right of municipalities to pass stronger pesticide bylaws - if they so chose. Ontario unfortunately did not take this important step. Redundancy in municipal and provincial law is critically needed in the regulation of pesticides, as well as providing flexible legislation for those municipalities wishing to provide greater protection for their communities. Politically, the NS government would probably also want to avoid the public outcry that would follow if the HRM pesticide bylaw were to be reversed.

F. If an explicit list of allowable materials is to be utilized, adopt that used by Ontario, rather than that used by Quebec. The Ontario list is much more complete. However, sooner or later as new products come on the market you will be asked to debate the addition or subtraction of materials from whatever list you employ, or perhaps hesitate to make necessary changes because of the time lost in contentious debate. A more satisfactory approach to this problem is readily within reach, and that is to specify that allowable materials shall be defined as any growing material given an "allowable" rating by the Canadian General Standards Board Organic Standard and/or by the Organic Materials Review Institute. See the attachments for further explanation and details on why this is by far the wisest way to handle these decisions in a dynamic manner that can adapt to a wide range of future situations. Briefly, a definition of "Pesticide" similar to that recently recognized by the UNSM (Resolution 19A, 2007 fall UNSM conference) is recommended:

"Pesticide means synthetic pesticides, including insecticides, fungicides, and herbicides, and any metabolite or degradation product of such product, device, organism, substance or thing ...as well as any product in which they are present whether or not the product has been given a Pest Control Product Number (PCP#) in Canada, and organic and other natural materials (e.g., nicotine and rotenone) prohibited by the organic standard of Canadian General Standards Board (CGSB) and/or by the Organic Materials Review Institute (OMRI)."

G. Insure that a provincial ban and any municipal pesticide bylaws within the province apply fully to all three property types: municipal, commercial and residential. The jurisdiction for HRM needs to be corrected in this regard, for example.

H. Remove the double standard in the jurisdiction for NS municipalities to regulate pesticides. Section 172 (1) j, in the MGA should be deleted.

I. Adopt the best models for enforcement. The City of Toronto's protocol for soil testing and vegetation surface sampling are excellent and should be adopted throughout in Nova Scotia. We all know traffic violations could easily skyrocket if drivers come to the conclusion that no tickets will ever be issued. Be

realistic and create an inexpensive but practical system of spot checking and occasional lab testing where verification is needed. HRM failed to do this and a certain fraction of the public was not long in figuring this out (to the detriment of public health).

J. Ban all mixtures of fertilizers and pesticides, such as weed and feed (as Quebec has done). These mixtures pose dangers to an unsuspecting public, and having only fertilizer registration numbers, they are not regulated as the true pesticide products they are.

K. Include golf courses. These are frequently sited in the middle of residential areas. Many jurisdictions allow them one or two years to come up with a plan to curtail pesticide use.

There are other things that should be said. A number of key points are contained in the attachments included with this presentation. I hope you can take a moment to look these over.

The application of pesticides is both non-essential, and a completely unacceptable risk to human health. Canadian jurisdictions which have eliminated landscape pesticides have already convincingly demonstrated that municipal, commercial and residential landscape can all be maintained to a very high standard utilizing a wide range of existing , economical, non-toxic culture methods, and natural soil-enhancing materials and products.

It is within our reach for this provincial initiative to substantially reduce the epidemic of auto-immune diseases, asthma and cancers, especially in children.

Thank you for your time and careful attention to these recommendations.

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Previous Member of the Pesticide Bylaw Advisory Committee for the HRM

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## INTEGRATED PEST MANAGEMENT (IPM) NOT RECOMMENDED

To reduce the use of landscape pesticides, IPM (Integrated Pest Management) is not the answer. Research has shown that pesticide bans combined with education campaigns are the most effective route to landscape pesticide reduction.

## PESTICIDE USE CAN INCREASE UNDER IPM

1. A June 2008 article describes Calgary's increase in pesticide use under IPM.

For details, see media report about 2/3 down this page.

2. An earlier "independent report" conducted in 2001 also found that the City of Calgary's use of pesticides

had increased under IPM (IPM was first implemented in 1997/1998). See:

Pesticide Use L SUSTAINABILITY TREND

<http://www.sustainablecalgary.ca/projects/stateofourcityreports.html>

Scroll down to the 2001 Report <http://www.sustainablecalgary.ca/documents/SOOC2001.pdf> then go to page 40.

3. In **Ottawa**, pesticide use also increased under IPM

Media quote: **"When the issue arose in 2002, said Dr. Sears, the lawn-care industry said that, using the guidelines of the IPM program, they could reduce pesticide use by more than 50 per cent. The city gave them two years to show what they could do and at the end of that time the amount of pesticide use on Ottawa lawns had actually increased to about 5 metric tonnes per year."**

- Quote from an Ottawa area paper, The Community Press, March 2, 2007.

4. The City of London rejected IPM (Integrated Pest Management) and then implemented a much stronger pesticide bylaw.

< <http://www.flora.org/healthyottawa/IPM.htm> > (Web posting: June 13, 2006)

The above website also includes the "Top Ten Reasons Why IPM Doesn't Work."

Details < <http://www.flora.org/healthyottawa/news-2006.htm#London> >

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Example of the caution some municipalities have developed toward IPM:

#### IPM NOT RECOMMENDED BY THE CITY OF OTTAWA

Quote from the City of Ottawa describing IPM:

**"This is a position advocated by Landscape Ontario, representing lawn care companies in Ontario, and involves the application of pesticides for cosmetic purposes. The City of Ottawa does not use IPM on its own properties ..."**

#### SOURCE:

City of Ottawa, Health, Recreation and Social Services Committee  
Report to/Health, Recreation and Social Services Committee and Council/  
16 June 2003/ Submitted by Councillor Alex Cullen, Bay Ward  
Contact/ 580-2477: [Alex.Cullen@Ottawa.ca](mailto:Alex.Cullen@Ottawa.ca)

Also from Ottawa: Pesticide runoff endangers ground water resources:

A City of Ottawa prepared study revealed that harmful levels of pesticides were detected in 2/3 of samples taken from local waterways in 2003. A significant contribution of residues from landscape pesticide use is acknowledged. See Surface Water Pesticide Monitoring Program

( <http://www.flora.org/healthyottawa/pesticidereportkeypoints.htm> ) .

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The NS government IPM information directs the reader to pesticide use (see "Frequently Asked Questions"):

**"Chemical Control In most cases, pesticides are used as a backup in an IPM program. Pesticide treatments are made when monitoring shows that preventive measures have not kept pest populations below the threshold level and other pest control methods such as physical or biological controls are either not available or not appropriate for use in the situation. ..."**  
<http://www.gov.ns.ca/nse/pests/ipmfaq.asp>

Organic methods and standards represent more sustainable and responsible pest management, offering the protection that Canadian communities and children deserve.

Media article referred to in point #1 (excerpted)

Thu 19 Jun 2008 Fast Forward Weekly

Calgary's pesticide use skyrockets; ban goes to committee next week as officials reveal city fudged the facts (by Adrian Morrow)

Calgary's pesticide use has increased by 54 per cent in four years, despite the city's assurances that it was cutting back on the chemicals. The numbers are contained in a report by the Environmental Management department to be released today, less than a week before aldermen decide whether or not to move forward with a ban on the cosmetic use of pesticides.

The amount of chemicals sprayed on city parks jumped from 2,519 kilograms in 2003 to 3,880 kilograms in 2007. The increase in the use of herbicides -- the type of pesticide that targets dandelions and other weeds -- leapt by 80 per cent, to 3,564 from 1,976 kilograms.

"We have an **Integrated Pest Management Policy**, but our pesticide use has actually been going up," says Ald. Druh Farrell. "We've been ignoring our own policy." As recently as 2006, in its State of the Environment Report, the city claimed to be cutting pesticide use. In that report, the city measured the use of chemicals in terms of the amount of pesticides used per hectare, which was declining.

What the report didn't indicate was that, as the city was getting bigger, the overall quantity of pesticides used was going up. Farrell says the city's Parks department kept that information secret until the

Environmental Management department pressed it for the numbers this year. The Park's department, however, says it was just doing what it was told.

"Pesticide use intensity was the measurement that was decided on," says Simon Wilkins, **integrated pest management co-ordinator** with the city. "I don't perceive that there's any withholding of information going on."

Anti-pesticide activists say the revelation that the city's use of chemicals is on the rise is further proof Calgary needs an outright ban. Farrell and two other aldermen introduced a motion to ban the cosmetic use of pesticides earlier this year. Under their plan, the city would stop using pesticides for beautifying city parks in 2009, and homeowners would be banned from using them by the end of 2010. Pesticides could still be used to control weeds if they posed a threat to trees or other plant life.

The proposal goes before city council's Standing Committee on Land Use and Environment on June 25. If the committee gives the go-ahead, the full council will vote on it in July.

A March 2006 poll suggests that more than 80 per cent of Calgarians favour getting rid of pesticides, and the Canadian Cancer Society links pesticide exposure to leukemia, non-Hodgkin's lymphoma and several other types of cancer.

Robin McLeod, an anti-pesticide campaigner, says the chemicals have also been linked to neurological problems, Attention Deficit Disorder (ADD) and endocrine disruption, which causes lower sperm counts in men and smaller ovaries in women. "It's like second-hand smoke, there are a lot of people who are going to be affected," says McLeod, whose own son suffered from cancer. ( ... )

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<http://tinyurl.com/5jg9p2>



Attached is a partial collection of **federal pesticide regulatory failings** that are particularly relevant at this time when pro-pesticide voices opposing the Nova Scotia provincial non-essential pesticide ban are claiming that pesticides are safe because they are well regulated by Health Canada.

Nothing could be further from the truth, but few realize the scope and extent of the regulatory problem. If Health Canada's Pest Management Regulatory Agency (PMRA) were doing its job, Canadian municipalities and provinces would not have had to work so hard the last decade to protect their residents from involuntary pesticide exposures.

We could be doing better in so many ways. Just as in the U.S., burgeoning health care costs are strangling operating budgets at all three levels of government. Reforming federal pesticide regulatory law could provide unexpected dramatic relief to this economic crisis through reductions in hospital admissions for asthma, Parkinson's Disease, immune system-related illnesses, treatments for all stages of cancers, reproductive problems, learning difficulties, genetic damage, birth deformities, and many other human health problems related to pesticide exposure. Compared to the health costs and damage from tobacco, this is a sleeping giant.

To reform, the PMRA could easily take a number of simple low-cost steps:

- Stop importing inferior regulatory policies and manufacturers' data from the U.S. If copying policies already in place in other countries seems desirable, then adopt the regulatory legislation in place in Sweden, where hundreds of pesticide products still in use in Canada have already been banned. What a difference that would make.
- Follow the model of the Organic Materials Review Institute (OMRI) of requiring disclosure of all secret ingredients in products and generic materials before approving any material for residential use in Canada. Many unlisted ingredients are more hazardous than the listed ingredients.
- Use independent OMRI and CGSB organic standards to make these decisions so they are at arm's length from the pesticide industry, as the UNSM did in their recent working definition of pesticide.
- And finally, act on parliament's advice and remove those close to the pesticide industry from all PMRA advisory committees. In Nova Scotia, the lawn care industry should *not* be part of the committee deciding what materials will be allowable, as they are demanding.

Lessening public debt and misery seems a step in the right direction. Congratulations to the NPD government's provincial initiative to ban the sale and use of cosmetic landscape pesticides -- an excellent beginning.

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## Regulatory Failings of Health Canada's Pest Management Regulatory Agency (PMRA)

It is commonly claimed that Canada's federal government is doing a good job regulating pesticides. This position is not supported by the documents, quotes and conclusions listed below.

Note: This summary does not yet include the PMRA's failure to label mixtures of pesticides and fertilizers as true pesticide products (with PCP numbers), nor the important step of banning them as the province of Quebec has done. Also, not included are pesticide risks to honeybees, and therefore our food security, and other untold forms of environmental damage; salmon smolts exposed to pesticides, for example, are unable to successfully make the endocrine changes needed to successfully migrate from fresh water to salt water environments and so perish when they get there.

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Key quote from the House of Commons report on pesticides highlights the fact that Health Canada's PMRA is unduly influenced by the pesticide industry:

**"To a certain extent, the PMRA is already a captive of the pesticide industry.** The Agency must rely on the data supplied by pesticide manufacturers in assessing whether or not to register their products since it has no independent, in-house testing capacity...The cost recovery fees collected by the PMRA represent approximately 30% of the Agency's operating budget. The PMRA's heavy priorities might be skewed in favour of its revenue-generating activities [e.g. registering pesticides over those that do not generate revenue [e.g. promoting alternatives to pesticides, re-evaluating older pesticides and education the public about the risks of pesticide use]." (s.15.13, p.145).

Source: *Pesticides, Making the Right Choice* For the Protection of Health and the Environment, Federal Report from the Standing Committee on Environment and Sustainable Development was released May 16, 2000.

<http://www.parl.gc.ca/InfocomDoc/36/2/ENVI/Studies/Reports/envi01-e.html>>

Over a year in preparation, this major federal Canadian report received broad cross-party support from four federal parties.

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Research in the last ten years has repeatedly shown that trace quantities of pesticides can sometimes cause much greater physiological damage than higher doses of the same pesticide. This is called the "Inverse dose relationship" and these findings mean that the PMRA's regulatory law (which is usually dose related) is often invalid and seriously underestimates harm to human health.  
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The PMRA recently approved the use of 2,4-D in residential environments in spite of the fact that the PMRA is fully aware that 1) these residues enter the home where they were never licensed to be present and can remain there for up to a year, and 2) that all batches of 2,4-D contain dioxins - potent carcinogens. Approving 2,4-D for use on lawns inevitably means that dioxins (which piggyback with all phenoxyherbicides) are guaranteed to be present as well. It is widely recognized that there is no safe level for exposure to dioxin isomers.

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The PMRA fails to educate the public on the risks of pesticide exposure, such as publicizing the following statement from the Ontario College of Family Physicians, "Our findings show associations between solid cancer tumours and pesticide exposure: brain cancer, prostate cancer, kidney cancer and pancreatic cancer, among others. We found non-Hodgkin's lymphoma; leukemia; nervous system effects like depression, suicide and learning difficulties; chronic disorders like Parkinson; and birth defects, fetal death and uterine growth retardation."

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Endocrine disrupting pesticides are un-assessed and unregulated by the PMRA. Many pesticides are estrogen mimics and thus are capable of stimulating estrogen-sensitive cancers.

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The Pest Management Regulatory Agency has very close ties with pesticide lobby groups such as CropLife and their subdivision, The Urban Pest Management Council (lobbyists for lawn sprayers across Canada). Against the advice of our federal Members of Parliament, lobbyists from these and other industry bodies sit on advisory committees for the PMRA. The House of Commons Standing committee on Environment and Sustainable Development urged the PMRA in May of 2000, to dissolve their Economic Management Advisory Committee. See "Pesticides, Making the Right Choice For the Protection of Health and the Environment," Federal Report from the Standing Committee on Environment and Sustainable Development (<http://www.parl.gc.ca/InfocomDoc/36/2/ENVI/Studies/Reports/envi01-e.html>), p. 150). After a decade, the PMRA has not yet acted on this advice. Promoting Integrated Pest Management (IPM), a pesticide industry sponsored business scheme that relies on the continued use of pesticides, is just one of the many industry-friendly policies the PMRA supports.

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The PMRA fails to adequately protect groundwater and drinking water resources from pesticide residues. The agency neither conducts (nor publishes the results of) regular, comprehensive pesticide residue monitoring of drinking water, and "boil orders" do nothing for pesticides except concentrate them. Pesticides are measurable in Canadian rainfall at levels far in excess of the levels *allowed* in European drinking water. The PMRA should establish a national standard for pesticide residues in drinking water that matches or exceeds the protective level of the European standard of 0.1 ppb, replacing the frankly inadequate Canadian standard of 100 ppb.

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The PMRA sometimes behaves arrogantly and fails to cooperate with other federal government departments, such as Environment Canada. Withholding information or failing to reply to correspondence is not unknown.

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The PMRA should provide information services to individuals and municipalities similar to that being provided by the Organic Materials Review Institute (OMRI). OMRI gives approval only to materials and products for which **full ingredient disclosure** has been provided to them by the manufacturer and then uses this information to provide a rating system so that businesses and citizens can avoid purchasing, using and being exposed to harmful toxins, whether fully disclosed or hidden in the ingredients. The PMRA could and should follow OMRI's example, and insist on full ingredient disclosure on product labels. At the very least, the PMRA should be providing the same service for Canadians that OMRI provides world-wide at very low cost. In contrast, the PMRA currently allows manufacturers to hide pesticides in the unlisted products ingredients. Another rather shocking provision of Canada's Pest Control Products Act (as put forward in Bill C-53 without objection from the PMRA in 2002) is the requirement for the WRITTEN CONSENT OF THE REGISTRANT (the manufacturer) before amendments may be made to PMRA's pesticide product registrations in order to reduce their health or environmental risks (section 24).

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Not having full and immediate access to all product ingredients means physicians lack essential information needed to diagnose and treat patients. The secrecy surrounding hazardous unlisted ingredients (so-called "Inert" Ingredients) seriously impairs medical care. Federal Report quote: *"It is evident to the Committee that the kind of in-depth and readily accessible information needed by medical practitioners to properly diagnose and treat cases of pesticide poisoning is lacking."* (s. 14.15, p. 138; s.13.3-13.9, p. 120-121).

**Source: Pesticides, Making the Right Choice: For the Protection of Health and the Environment,**

Federal Report from the Standing Committee on Environment and Sustainable Development:

<http://www.parl.gc.ca/InfocomDoc/36/2/ENVI/Studies/Reports/envi01-e.html>

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Genetic damage caused by exposure from genotoxic pesticides is multi-generational in its effects. The PMRA does not educate the public on this grave risk nor does it take credible steps to prevent it.

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Breakdown products and metabolites of pesticides (which can be more toxic than the original active ingredient) are neither assessed nor included in federal regulatory law. They should be. The Province of New Brunswick defines "pesticide" in part as: *".. any metabolite or degradation product of such product, device, organism, substance or thing ..."*. (Pesticides Control Act (Chapter P-8)). Because the metabolites and breakdown products of pesticides are sometimes as toxic or much *more* toxic than the named pesticide itself, it is critical to regulate them. Existing outside the definition and therefore outside federal law means the PMRA fails to track, monitor or regulate them.

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Few know that the PMRA allows the substitution of U.S. data for describing what is taking place in Canada. This can grossly underestimate the impact of pesticides in the Canadian environment (i.e., on air, soil and groundwater) by failing to record the effects of atmospheric distillation (grasshopper effect) on the long range transport of a significant number of pesticides. Although the Agency must surely be aware of the ability of the atmosphere to concentrate specific pesticides, the increased level of pesticides in precipitation in more northern latitudes (in comparison to levels in the U.S.) goes unreported and un-assessed by the PMRA. The potential for additional physiological damage to so-called "non-target organisms" (e.g., *human communities*) north of the U.S. border is then likely to be missed. Similarly, the resultant accumulation of pesticide residues in fish, wildlife and other human food sources and the effects of large pollution pulses that occur when snow cover melts rapidly in the spring also go unmeasured and unreported.

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The PMRA's allowable dosage regulations lack these three accurate and needed printed advisories:

(1) Warning: The U.S. EPA has stated that no methods exist for assessing the health impacts of Mixtures of Chemicals (U.S. EPA, April 2000). Synergistic effects which can multiply the toxic impact of active ingredients 100 or 1000 times or more are not evaluated. This means when claims are made that the Canadian regulatory process has assessed, and allowed safety margins for any possible health risks ... this is an impossibility.

(2) RE- The timing of the dose affecting critical windows of development (e.g., neural tube closure)

Warning: The timing of this dose exposure may cause irreversible embryological damage at critical windows of development due to timing of the exposure (not the dose). These are not allowed for by the PMRA's "margins of safety," making these dosage guidelines irrelevant;

(3) Warning: many registered pesticides (synthetic insecticides, herbicides, and fungicides) can disrupt hormone function by stimulating cell multiplication (e.g., tumours), blocking normal hormone function, or otherwise disturbing growth and development; please be advised that the dosage levels recommended have not taken this into account.

The PMRA has so far failed to recognize that risk is a social construct, that only the communities and individuals being exposed to environmental toxins can decide how much risk they are willing to accept. The PMRA chooses instead to externally impose on Canadians a level of risk (from multiple sources such as those listed here), unilaterally deeming this as "acceptable."

PMRA policies contribute to global warming. Recent research establishes that organically managed agricultural soils hold 30% or 40% more carbon than tilled cropland treated with pesticides. In Canada, by implementing organic farming practices on all conventionally farmed land our CO2 emissions would be reduced by 20% per year. The PMRA's dependency and promotion of pesticide-

based agriculture fails to encourage carbon sequestration and so fails to enhance the health of Canadians and the planet.

Source: Organic Farming Can Help Reverse Global Warming

AScribe Newswire / [www.ascribe.org](http://www.ascribe.org) / 510-653-9400 / Oct 10, 2003

<http://www.organicconsumers.org/organic/globalwarming101003.cfm>

The Pest Management Regulatory Agency has so far refused to register soap products for use on lawn chinch bug. Soap products are an effective method of controlling this insect and failing to register them results in greater use of chemical pesticides and thus increased potential damage to human health in residential areas (99% of HRM permit requests are for chinch bug). Numerous requests for the PMRA to register soap products for chinch bug have been submitted by credible sources spanning several years, but the federal body still resists taking action. Related correspondence with the Pest Management Regulatory Agency (2004 - 2007) is posted online by David Patriquin at <http://versicolor.ca/lawns/docs/SoapFeb05/soapNEW.html>. The evasions and delays in regulatory action are documented together with a certain level of secrecy which hampers transparency in the regulatory process.

Summarizing quote: "There is no apparent reason for the PMRA to move so slowly to remove pesticides that they recognize are serious health hazards from the domestic market, and at the same time restrict access to much safer materials."

Source of quote: <http://versicolor.ca/lawns/secCPM.html> (end of section 6).

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#### SPECIFIC EXAMPLE OF DEFICIENCIES IN PMRA DECISIONS

The research paper below provides a clear illustration of poor regulatory performance with respect to 2,4-D, in particular, and more generally with respect to the mandate of the PMRA to protect the public health of Canadians.

The citation of this peer reviewed pediatric publication reads as follows :

M Sears, CR Walker, RHC van der Jagt, P Claman.

**Pesticide assessment: Protecting public health on the home turf.**

**Paediatr Child Health** 2006;11(4):229-234.

It provides strong arguments for the removal of 2,4-D from the Canadian market as well as for the removal of many "weed and feed" and "weed control" products. It documents the dismal record of the PMRA with respect to 2,4-D, and the need for strong legislative changes.

Quotes from the abstract:

".. the balance of epidemiological research suggests that 2,4-D can be persuasively linked to cancers, neurological impairment and reproductive problems. These may arise from 2,4-D itself, from breakdown products or dioxin contamination, or from a combination of chemicals."

"Dioxins are bioaccumulative chemicals that may cause cancer, harm neurological development, impair reproduction, disrupt the endocrine system and alter immune function. No dioxin analyses were submitted to the Pest Management Regulatory Agency, and the principal contaminants of 2,4-D are not among the 17 congeners covered in pesticide regulation."

"The 2,4-D assessment does not approach standards for ethics, rigour or transparency in medical research. Canada needs a stronger regulator for pesticides."

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Given this less than ideal federal record, a strong province-wide pesticide code for Nova Scotia in combination with full enabling jurisdiction for municipal bylaws (similar to the system in Quebec), is needed to correct some of these deficiencies.

An additional detailed discussion of the failings of the PMRA, including material not reviewed here, is available online under the heading,

"Problems with Canada's Pest Management Regulatory Agency (PMRA)"

( <http://www.flora.org/healthyottawa/pmra-fs-6.htm> )

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## A BETTER DEFINITION OF PESTICIDE IS NEEDED

HRM's experience has taught us that to pass effective legislation a better definition of "pesticide" is required than that which is commonly used. Adopting the improved definition employed by the Union of Nova Scotia Municipalities (UNSM; fall 2007 conference), will solve many difficulties.

**Current definitions** (such as that in the NS Environment Act) have a number of problems. They typically -

- (1) lump together non-toxic alternatives (that we want to encourage people to use) with synthetic chemical pesticides that pose serious health risks, This is confusing.
- (2) do not identify fertilizers that contain pesticides, such as weed and feed; these are registered only as Fertilizer Products, not Pest Control Products, and so are unregulated by the pesticide regulatory process.
- (3) require municipalities and legislatures to come up with lists of acceptable benign materials (such as a vinegar product for weeds) that may be used in spite of being registered as pesticide products; the long discussions needed to modify these lists (one ingredient at a time) can be time consuming, confusing and contentious, with outcomes sometimes more influenced by politics than science,
- (4) are not automatically and frequently updated as new materials and products come on the market or have their approvals removed as products are deemed unsafe when new research findings are published,
- (5) do not cope with the differences between the US and Canadian marketplace, even though our store shelves display products from both sources.
- (6) have no mechanism to avoid any of the secret hazardous chemicals hidden in the unlisted ingredients.
- (7) whenever permit systems are employed (these are more expensive to administer, more cumbersome, and much less protective of public health than permit-free legislation), there is no regulatory category that easily recognizes the three categories of "Approved," "Restricted," and "Prohibited" that are employed by both the Organic Materials Review Institute (OMRI) and by the Canadian General Standards Board (CGSB) organic standard. Permits, if used at all, should be defined to



apply only to the "Restricted" category of materials (including the accompanying cautions specified by OMRI), with the continuing exclusion of "Prohibited" materials being maintained. For information on these third party standards see <http://www.omri.org> and [http://www.tpsgc-pwgsc.gc.ca/cgsb/on\\_the\\_net/organic/032\\_0311\\_2006-e.pdf](http://www.tpsgc-pwgsc.gc.ca/cgsb/on_the_net/organic/032_0311_2006-e.pdf) .

The problems outlined above can all be avoided.

A definition of "Pesticide" similar to that recently recognized by the UNSM (Resolution 19A, 2007 fall UNSM conference) sidesteps many of these difficulties:

"Pesticide means synthetic pesticides, including insecticides, fungicides, and herbicides, and any metabolite or degradation product of such product, device, organism, substance or thing ...as well as any product in which they are present whether or not the product has been given a Pest Control Product Number (PCP#) in Canada, and organic and other natural materials (e.g., nicotine and rotenone) prohibited by the organic standard of Canadian General Standards Board (CGSB) and/or by the Organic Materials Review Institute (OMRI)."

This definition should be adopted for both NS provincial and municipal regulatory law.

The OMRI and CGSB lists are updated automatically and frequently, and are supervised by highly qualified advisory bodies. It can be a great help to municipalities and provincial legislatures to be able to refer inquiries or challenges from the pesticide industry to these third party advisory bodies, instead of having to handle these themselves.

These organizations give approval only to materials and products for which the manufacturer has *fully disclosed all ingredients* (listed and unlisted), and which have been determined by their technical advisors to contain nothing harmful.

To take advantage of this approach when drafting a pesticide bylaw or provincial legislation, simply specify that if a product or material is prohibited by the organic standard of the Canadian General Standards Board and/or by the Organic Materials Review Institute then it is also prohibited by a NS provincial-wide pesticide code and by the jurisdiction for NS municipalities in the Municipal Government Act (and the bylaws that result from it).

The inclusion of the words "metabolite" and "degradation product" is worth considering as part of the definition. See the Province of New Brunswick's *Pesticides Control Act* (Chapter P-8), which defines "pesticide" in part as: " .. *any metabolite or degradation product of such product, device, organism, substance or thing ...*". The metabolites and

breakdown products of pesticides can be as toxic or much *more* toxic than the named pesticide itself, yet they are frequently unregulated, untracked and unmonitored because they exist outside the definition and therefore outside the law.

The adoption of these approaches is well worth consideration if the protection of public health is given the priority it deserves.

### **Accessing Information on Products and Generic Materials**

A very user-friendly way to access and use this information is to go to the DIRECTORY OF ALLOWABLE ORGANIC INPUTS on the website for the Atlantic Canadian Organic Regional Network (ACORN) <http://www.acornorganic.org/acorn/index.html>. Look in the menu on the left for OMRI and CGSB. Using this maritime-based website, one can enter the name of any material and find out immediately its status with these bodies and also with Health Canada's PMRA.

Utilizing the ACORN website means that there is no need for policy makers, vendors or members of the public to consult several websites or to pay membership fees to organic review bodies in order to learn what the status is of various growing materials.

A fuller discussion of the advantages of this approach is provided by Professor David Patriquin on his excellent website "**Control of Chinch Bug Without Pesticides** and Other *Ecological Lawn-care Practices*" at <http://versicolor.ca/lawns/docs/proposal.html> under the heading "What's a Pesticide?"