Present: Mayor F. Eisenberger (Chair)


Absent with regrets: Councillor B. Morelli – City Business

Also Present: R. Hall, S. Walsh – Public Health Services Department
A. Dore – Public Works
R. Sabo – Legal Services
C. Biggs – City Clerk’s

THE FOLLOWING WAS REPORTED TO CITY COUNCIL FOR INFORMATION:

(a) Changes to the Agenda

The Clerk advised that additional speakers have been added to the speakers’ list and written submissions received after the printing of the agenda had been circulated to the members of the Board of Health. The additional written submissions will be retained for the public record in the City Clerk’s Office.

Councillors Mitchell and Bratina indicated that they have also received written submissions which they will forward to the Clerk’s Office for the public record.
(b) Declarations of Interest

Mayor Eisenberger requested if there were any declarations of interest of which there were none.

(c) Overview of the proposed Pesticides Use By-law

Rob Hall, Director of Health Protection Branch, Public Health Services Department, reviewed the various components of the proposed by-law, giving a power point presentation which was distributed to the Board. A copy has been retained by the City Clerk for the public record.

Councillor S. Merulla acknowledged the efforts of Councillor B. McHattie as Chair of the Pesticides Sub-Committee to bring this by-law forward.

(d) Delegations

The Board of Health received the following delegations:

(i) SAGE (Scholastic Arts and Global Education – Strathcona School)

Teachers and students from Strathcona School performed two musical pieces for the Board of Health about “Pesticide-Free Garden” and “It’s Our World and We’ve Got to Save It Now”. The goal of SAGE is to be environmental and ban pesticides.

(ii) Linda Wu, Public Issues Chair, Hamilton-Wentworth Unit, Canadian Cancer Society, Central West Region

Heather Logan, Director of Policy and Information

Spoke in support of By-law.

Copy of presentation submitted for the public record.

(iii) Sally Luke

Provided the Board with a power point presentation entitled, “The Environment and Autism”; ASD rates increasing; link between pesticides and autism; presentation included various articles from newspapers and medical journals linking exposure to pesticides causes autism.
(iv) Jan Kasperski, R.N., CEO, Ontario College of Family Physicians

Spoke in support of By-law.

Copies of written materials submitted for the public record.

(v) Melissa Iannace

Spoke in support of By-law.

Submitted petition signed by 1500 citizens supporting city council’s initiative to develop and enact a by-law restricting or banning the use of cosmetic pesticides on private and public lands.

Copy of presentation submitted for the public record.

(vi) Mark Coakley, Chair, Environment Hamilton

Spoke in support of By-law.

Copy of comments submitted for the public record.

(vii) Dr. Caroline King, on behalf of the Canadian Association of Physicians for the Environment (CAPE)

Spoke in support of By-law.

Copy of comments submitted for the public record, together with a position statement on Synthetic Pesticides issued by the CAPE.

(viii) Rashne Baetz

Spoke in support of By-law.

Copy of comments submitted for the public record.

(ix) Christine Brown

Spoke in support of By-law.

Copy of comments submitted for the public record.

(x) Thom Oommen

Comments included, but not limited to:

➢ Firm supporter of proposed by-law
- Outlined arguments against by-law which are outdated
- Harmful to birds, bees and pets and ultimately, lakes (drinking water)
- What are recourse available to susceptible groups i.e., fetuses, and children
- Need to have complete ban on any public land
- Looking forward to pesticide-free city

(x) Sapphire Singh, on behalf of Green Venture

Spoke in support of By-law.

Copy of comments submitted for the public record.

(xii) Cindy Mayor

Spoke in support of By-law.

Copy of comments submitted for the public record.

(xiii) Rita Bailey

Spoke in support of By-law.

Copy of comments submitted for the public record.

(xiv) Laurel Harrison

Spoke in support of By-law.

Copy of comments submitted for the public record.

(xv) Bruno Polewski

Spoke in support of the By-law.

Copy of comments submitted for the public record.

(xvi) Paul McIntosh

Spoke in opposition to the By-law in its current form.

Copy of power point presentation submitted for the public record.

Additional information received and retained.
(xvii) Alison Healing, on behalf of the Conserver Society of Hamilton and District

Spoke in support of a By-law.

Copy of comments submitted for the public record.

(xviii) Cheryl St. James

Comments included, but not limited to:

- Approximately 121 other municipalities have realized effects of pesticides and herbicides on health
- Time to stand up for own health and safety and say no to further production to all pesticides; no tolerance, no exemptions
- Golf courses should not have exemptions either
- Up to Council to protect citizens of Hamilton
- Only one choice, which is to say no to further production of pesticides; work together to make Hamilton a healthier city
- Challenge to raise the bar and say no and become pesticide free

(xix) Victor Starecky

Comments included, but not limited to:

- Citizen and business man in Hamilton
- Make by-law stricter in terms of parks and golf courses

(xx) Gregory Heins

Spoke in support of the By-law.

(xxi) Peter Ormond

Comments included, but were not limited to:

- Focus more on health protection and sickness prevention and part of that is local organic food
- Golf courses, sports parks and fields should not be exempt

(xxii) Janet Chafe

- Increase in diseases that are associated with lawn chemicals
- Lawn chemicals associated with autism
- In New York City, more breast cancer in rural areas than inner city
There is no evidence that lawn chemicals are not harmful to people
Urge Council to absolutely eliminate all pesticides

(xxiii) Lisa Richter/Beverly Morgan, on behalf of Hamilton chapter of Registered Nurses Association of Ontario
Spoke in support of By-law.
Copy of comments submitted for the public record.

(xxiv) Sheila Brown
Spoke in support of By-law.
Copy of comments submitted for the public record.

(xxv) Glen Marshall
Comments included, but not limited to:
Fed up with pesticide issue; don’t understand manicured lawn concept
Want to see government do more of the right thing
Have canvassed neighbours to discourage use of pesticides
In support of by-law

(xxvi) Dave Robinson
Spoke in support of By-law.
Copy of comments submitted for the public record.

(xxvii) Roy Shuker, representing Agricultural and Rural Affairs Advisory Committee
Ontario’s farmers are highly committed to using pesticides safely and responsibly
Farmers continue to adopt new technologies and management practices that will assist in reducing the need for chemical pesticides but the abundant, high quality affordable food that Canadians rely on can only be produced if farmers have access to safe, effective options for controlling pest devastation in crops
Copy of comments submitted for the public record.
Following the list of registered speakers, the Chair requested if there was anyone in the gallery wishing to address the Board. The following are those who presented:

(xxviii) Grant Ranalli

Comments included, but were not limited to:

- Elementary school teacher who advocates for students; obligation to look out for safety and welfare
- Issue boils down to, “for the sake of vanity, are we willing to jeopardize the health and lives of ourselves and family?”
- Believe in principles of stewardship; need to take care of this Earth
- Hope that Council supports By-law

(xxix) Michael Nebert

Comments included, but were not limited to:

- Environmental activist
- Cumulative effect on personal health is one of attrition; no acceptable level or avoidable level
- Should not be marking sports fields
- No organism exists in a vacuum and everything is inter-related
- Should move to eliminating pesticides as much as possible

(xxx) Jeff Lowartz, Heritage Green Lawn Care Specialists

Comments included, but were not limited to:

- Operate lawn care company in the City; pesticide applicator on land and water and licensed to teach; talk about landscape industry
- Concept of pesticides that people do not understand
- Want to talk about how industry is changing and educating themselves to provide more environmental options
- Nothing in by-law to educate citizens on horticulture
- By-law should be rewritten in consultation with people in the horticulture industry
- Healthy soil is core

(xxxii) Irwin Schmidt/Peter McLeod, CropLife Canada

Spoke in support of By-law.
Copy of comments submitted for the public record.

(xxxiii) David Marshall

Comments included, but were not limited to:

- Get specialists involved before making decision
- People trying to impose their own opinions on everyone – need better way to get broader views involved; need to come up with something to protect innocent people
- Did not hear that push should be that chemicals should be last resort
- Educate people on alternatives and basis should be chemicals as a last resort

(e) Written submissions/comments:

(Jackson/McHattie)
That the following written submissions regarding proposed banning of the use of pesticides, be received:

(i) Joe Kalinowski
(ii) Rai Fast
(iii) Ron Webber
(iv) Mike Street
(v) Arcadia Hubert
(vi) Anne Vyn
(vii) Richard Knight
(viii) John and Lana Spencer
(ix) John and Joan Hayes
(x) James Angelini
(xi) Frank Gallo
(xii) Scott and Laurel Gallea
(xiii) Tom Langdon
(xiv) Ron and Pat Donovan
(xv) Bruce Miller
(xvi) Larry and Debbie Murphy
(xvii) Jo-Anne Neath
(xviii) David Neath
(xix) Darcy Olds, Crop Life Provincial Council
(xx) Peter McLeod/Irwin Schmidt, Crop Life Canada
(Jackson/McHattie)

That the following written submissions expressing support for the Pesticides Use By-law, be received:

(i) J. Kubis
(ii) Jeff Janiszewski
(iii) Iris Berryman
(iv) Christopher Carroll
(v) Norma Moores
(vi) Mary Enid Haines
(vii) Douglas MacPherson
(viii) Michael Cappadocio and Mary-Lou MacDonald
(ix) Andrew Pettit
(x) Lisa Knap
(xi) Barbara Benjamin
(xii) Patrick Porter
(xiii) Andrew Brink
(xiv) Dr. Sara Mendelson
(xv) Andrew Hall
(xvi) Anna Chen
(xvii) Mary Mills
(xviii) Carol Reichheld
(xix) Reuven and Ruth Kitai
(xx) Anna Nisbet
(xxi) Robin Zilberg
(xxii) Bruno Polewski
(xxiii) Beatrice Ekwa Ekoko
(xxiv) Canadian Cancer Society, Hamilton-Wentworth Unit
(xxv) Cindy Mayor
(xxvi) Samantha Berlin
(xxvii) Stephen L. Tvedten
(xxviii) Lisa Richter, R.N., Hamilton Chapter, Registered Nurses’ Association of Ontario
(xxix) Louise Packer, R.N.
(xxx) Dan and Laura Subonovich
(xxi) Kelly Gismondi
(xxxii) Chris and Rosanne Murray
(xxxiii) Louisa Kratka
(xxxiv) Jen Baker
(xxxv) Sandra Starr
(xxxvi) Gail Spring
(xxxvii) Tom Atterton, Secretary, Hamilton and District Labour Council CLC
There being no further business, the meeting adjourned at 10:20 p.m.

Respectfully submitted,

Mayor Fred Eisenberger, Chair
Board of Health

Carolyn Biggs
Legislative Assistant
September 13, 2007
The Use of Ornamental Pesticides

Submission to the City of Hamilton
Board of Health

Open Public Meeting
September 13, 2007

Submitted by:
Canadian Cancer Society
Hamilton-Wentworth Unit
The Use of Ornamental Pesticides

The Canadian Cancer Society is very concerned about the use of potentially carcinogenic (cancer-causing) substances for the purpose of enhancing the appearance of, for example, private gardens and lawns as well as parks, recreational facilities and golf courses (ornamental use). We base this concern on the conclusions of the International Agency for Research on Cancer (IARC) that state that some substances used in pesticides are classified as known, probable or possible carcinogens. In some cases, evidence linking pesticides and cancer will not be scientifically definitive, but it may be suggestive and growing.

Since ornamental use of pesticides has no countervailing health benefit and the potential for harm exists, the Canadian Cancer Society is calling for a ban on the use of pesticides on lawns and gardens.

Precautionary Principle

The Canadian Cancer Society employs the precautionary principle, along with high quality science, to develop its’ cancer prevention and risk reduction messages.

The precautionary principle states that whenever there is reliable scientific evidence that a substance may have an adverse impact on human health and the environment but there is still scientific uncertainty about the precise nature or the magnitude of the potential damage, decision-making must be based on ‘precaution’, in order to prevent damage to human health and the environment.
Supporting Evidence

The evidence linking pesticides and cancer is not scientifically *definitive*, but in many cases it is *suggestive*, and the amount and quality of the research is growing.

Based on the most credible research available, we know that science has linked pesticide exposure to:

- Childhood brain cancer
- Childhood and adult leukemia (14 out of 16 studies showed a positive association, of which 13 - or more than 80% - are statistically significant)
- Wilms’ tumour, a type of kidney cancer usually found in children under the age of 5
- Neuroblastoma, a type of cancer that develops in immature nerve cells and affects mostly infants and children
- Ewing’s sarcoma of bone, one of a group of tumours that all develop from the same type of stem cell
- Breast cancer (increased cases of mammographic findings that are markers for development of breast cancer. None found statistically significant difference between those exposed and those not exposed in terms of actual malignancies)
- Kidney cancer (6 showed positive and statistically significant association, mostly among children whose parents were occupationally exposed)
- Lung cancer (may be a relationship, but the results are not statistically significant. Further research is needed)
- Non-Hodgkin’s lymphoma (23 out of 27 studies found a positive association, 11 out of 27 of which are statistically significant)

It is true that there are limitations to the existing science base. For example:

- Participation in studies may be lower than we would like it to be. Larger sample sizes give us greater confidence in a study’s findings;
- Length of follow-up after studies are conducted may not be as long as we might like it to be. Considering that cancer can take 15-25 years to develop after exposure to a cancer causing substance, follow-up in the order of decades may be required to see an actual impact in cancer incidence;
- Studies may assess occupational exposure to pesticides and not residential exposure, so extrapolating the results from the study population to the general population requires some level of judgment;

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Information enclosed in parenthesis has been taken from the Ontario College of Family Physicians report, *Pesticides Literature Review.*
• We may only have animal studies from which to draw conclusions, and the biological impact of exposure to pesticides in animals may not be identical to that which might occur in humans;
• Populations that were studied may be exposed to multiple substances, which can make it difficult to isolate one particular exposure from the others;
• And sometimes, people are asked to remember potential exposures from 10-15 years ago, which can be difficult;
• Limitations on study design. We can not conduct studies that would show a direct cause and effect because of ethical considerations. We rely on epidemiological studies.

As the Canadian Cancer Society, it is our obligation to bring awareness and share information on known, probable or possible carcinogens. Although there are limitations to the existing science base, one must take into consideration what the scientific research done to date suggests.

Much of the research on the association between pesticides and cancer has focused on occupational exposures. Few studies have focused on how exposure to cosmetic pesticides affects the general population, particularly vulnerable groups such as children, pregnant women and those with weakened immune systems who we know to be at higher risk. Also, many individuals claim that if used responsibly, pesticides pose little if no risk to human health. However, monitoring each and every pesticide application is impossible. Until studies provide conclusive evidence that there are no short or long-term negative implications for public health and that children and vulnerable populations are not at risk, we have an obligation to protect individuals from any and all possible risks associated with exposure to pesticides.

Like many of the studies currently being done examining the relationship between pesticide exposure and cancer, the majority of early studies conducted to examine tobacco use and cancer risk involved relatively small sample sizes (e.g. about 600 people in studies published in the 1950s). If these studies, which suggested a link between tobacco use and lung cancer, had not been taken seriously, the US Surgeon General may not have acted in the 1950s alerting the public to this risk. If that information had sat unnoticed, countless men and women would have exposed themselves, perhaps unknowingly, to carcinogens found in cigarettes and increased their risk of developing lung cancer. Despite the scientific limitations of early research conducted and in spite of not knowing – as we do today – that tobacco increases the risk of more than 15 different types of cancer, we acted. In spite of concern about an individual’s right to smoke, we acted.
We cannot fail to act solely because of limitations in the scientific literature. We need to listen to the suggestive and growing scientific body of evidence linking pesticide exposure to cancer. Smoke-free bylaws and laws that penalize those who drink and drive give us clear indication that society is willing to place the rights of communities above the rights of individuals when there may be harm to human health.

**Community Poll – Hamilton**

In July 2007, the Canadian Cancer Society Hamilton-Wentworth Unit commissioned Oraclepoll Research Limited, a national public opinion polling and market research organization, to conduct a community poll. This poll would assess the opinion of Hamilton residents on the ornamental use of pesticides using computer-assisted techniques of telephone interviewing (CATI) and random number selection from across all Wards in the City of Hamilton. A total of 500 randomly selected residents 18 years of age and older were interviewed and the margin of error for this 500-person survey was +/- 4.3%, 19/20 times.

The survey shows a dramatic increase in public concern over the use of toxic lawn chemicals, with 78% of Hamilton residents in support of a phase out of cosmetic pesticides on private residential property. Polling done by the City of Hamilton in 2002 found only 56.5% was supportive.

<table>
<thead>
<tr>
<th>Would you say that you support or oppose a phase out of cosmetic pesticides use on private residential property?</th>
</tr>
</thead>
<tbody>
<tr>
<td>17%</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Would you support or oppose a phase out on the use of cosmetic pesticides in public parks in your community?</th>
</tr>
</thead>
<tbody>
<tr>
<td>11%</td>
</tr>
</tbody>
</table>

- Oppose
- Support
- Do

There is also very strong support among 87% of Hamilton residents for a phase out of cosmetic pesticides in public parks.
A total of 70% of residents surveyed agreed that The City should pass a by-law phasing out the use of lawn pesticides compared to only 11% that disagreed.

81% of Hamilton residents view pesticide reduction as a public health issue compared to only 14% that see it as a property rights matter.

This community poll demonstrates that concern about pesticide use is growing and provides more evidence in favour of a by-law restricting the use of ornamental pesticides in the City of Hamilton. *City Councillors, please consider this poll in your decision-making and respond to this public health issue with a strong by-law restricting the use of ornamental pesticides.*
The City of Peterborough – A Model By-Law

The City of Peterborough passed a by-law restricting the use of ornamental pesticides in 2005. This strong, model by-law has few exemptions allowing for the use of pesticides, for example, it does not contain an infestation clause and only allows exemptions if and only if there is a threat to human health. Peterborough’s by-law is simple for residents to understand as it is specific in its terminology regarding pesticide use, it is easy to enforce and has worked very well since its implementation. Please find below a copy of this by-law:

THE CORPORATION OF THE CITY OF PETERBOROUGH
BY-LAW NUMBER 05-077
BEING A BY-LAW TO REGULATE THE USE OF PESTICIDES WITHIN
THE CITY OF PETERBOROUGH
THE CORPORATION OF THE CITY OF PETERBOROUGH BY THE COUNCIL
THEREOF HEREBY ENACTS AS FOLLOWS:
Whereas Section 130 of the Municipal Act, 2001 authorizes the City to enact bylaws which provide for the protection of the “health, safety and well-being” of City residents;
And Whereas the Council of the City of Peterborough desires to respond to the concerns expressed by City residents about the health risks associated with the use of pesticides;
And Whereas regulating the non-essential use of pesticides will help to promote and protect the health of City residents.
NOW THEREFORE THE COUNCIL OF THE CORPORATION OF THE CITY
OF PETERBOROUGH BY ITS COUNCIL ENACTS AS FOLLOWS:
Definitions:
1. In this by-law, the following word has the following meaning:
I.P.M. accredited groundskeeper – means a person who:
(a) obtains and maintains accreditation in a recognized integrated pest management programme from the Audubon Cooperative Sanctuary System of Canada, or equivalent, as determined by the City; and
(b) provides proof of I.P.M. accreditation to the City Clerk on or before January 31st of each year.
Pesticide – means any substance, other than a substance derived from plants, plant extracts or microbial pest control agents, which is intended to:
(a) control, destroy, reduce, or repel, directly or indirectly, an animal, plant or other organism which is harmful or annoying to a human being; or
(b) inhibit or prevent the growth of plants.
Offence
2. The application or use of a pesticide is prohibited within the boundaries of the City of Peterborough.

Exceptions
3. Notwithstanding Article 2, it is permitted to apply or use a pesticide in the following cases:
(a) In a public or private swimming pool;
(b) To purify water for human or animal use;
(c) Inside of a building;
(d) On land used for the commercial production of food;
(e) To control, destroy, reduce or repel, directly or indirectly, an animal, plant or other organism which is harmful to human health; or
(f) On a golf course, provided that after March 1st, 2007, any such use or application is permitted only under the direction of an I.P.M. accredited groundskeeper.

Penalty
4. Any person who contravenes this by-law is guilty of an offence and, upon conviction, is liable to a fine or penalty provided for in the Provincial Offences Act, as amended.

Effective Date
5. This By-law comes into force and effect on March 1, 2006.
By-law read a first and second time this 2nd day of May 2005
By-law read a third time and finally passed this 2nd day of May 2005.

The Canadian Cancer Society recommends that other municipalities model the City of Peterborough’s by-law restricting pesticide use.

Alternative Lawn Care

There are other ways to keep lawns and gardens healthy without using pesticides. This info is also available at www.cancer.ca:

- Pick or dig out weeds at the root.
- Keep lawns watered, but not over-watered.
- Never cut off more than one-third of the height of your grass.
- Aerate your lawn to allow moisture and nutrients to reach the roots of the grass.
- De-thatch your lawn if necessary.

Pesticide By-Laws in Ontario

As of August 3, 2007, 133 by-laws had been adopted across Canada, 25 of those being within Ontario. Ontario communities that have passed by-laws:
<table>
<thead>
<tr>
<th>#</th>
<th>City, Province</th>
<th>Population</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Toronto ON</td>
<td>2 503 281</td>
<td>Pesticide By-law Adopted</td>
</tr>
<tr>
<td>2</td>
<td>Hamilton ON</td>
<td>504 559</td>
<td><strong>Pesticide By-law Drafted</strong></td>
</tr>
<tr>
<td>3</td>
<td>Waterloo (Region) ON</td>
<td>478 121</td>
<td>Pesticide By-law Adopted (NR)</td>
</tr>
<tr>
<td>4</td>
<td>London ON</td>
<td>352 395</td>
<td>Pesticide By-law Adopted</td>
</tr>
<tr>
<td>5</td>
<td>Markham ON</td>
<td>261 573</td>
<td>Pesticide By-law Adopted</td>
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<tr>
<td>6</td>
<td>Vaughan ON</td>
<td>238 866</td>
<td><strong>Pesticide By-law Drafted</strong></td>
</tr>
<tr>
<td>7</td>
<td>Windsor ON</td>
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<tr>
<td>8</td>
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<td><strong>Pesticide By-law Drafted</strong></td>
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<tr>
<td>11</td>
<td>Peterborough ON</td>
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<td>13</td>
<td>Sarnia ON</td>
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<td><strong>Pesticide By-law Drafted</strong></td>
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<tr>
<td>14</td>
<td>Caledon ON</td>
<td>57 050</td>
<td>Pesticide By-law Adopted (NR)</td>
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<tr>
<td>15</td>
<td>North Bay ON</td>
<td>53 966</td>
<td>Pesticide By-law Adopted (NR)</td>
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<tr>
<td>16</td>
<td>Georgina ON</td>
<td>42 346</td>
<td>Pesticide By-law Adopted (NR)</td>
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<td>Orangeville ON</td>
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<td>Thorold ON</td>
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<td>Pesticide By-law Adopted</td>
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<td>Cobourg ON</td>
<td>18 210</td>
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<td>20</td>
<td>Smith-Ennismore-Lakefield</td>
<td>17 413</td>
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<td>21</td>
<td>Collingwood ON</td>
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<td>22</td>
<td>Brockton</td>
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<td>Gananoque ON</td>
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<tr>
<td>25</td>
<td>Deep River ON</td>
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<tr>
<td>26</td>
<td>Georgian Bay ON</td>
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<td>Pesticide By-law Adopted</td>
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<tr>
<td>27</td>
<td>Nipigon</td>
<td>1 752</td>
<td>Pesticide By-law Adopted</td>
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<tr>
<td>28</td>
<td>Cobalt ON</td>
<td>1 229</td>
<td>Pesticide By-law Adopted</td>
</tr>
<tr>
<td>29</td>
<td>The Archipelago (Parry Sound) ON</td>
<td>576</td>
<td>Pesticide By-law Adopted</td>
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<tr>
<td><strong>25 TOTAL</strong></td>
<td><strong>4 523 961</strong></td>
<td>Adopted</td>
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**Concluding Statement**

The Canadian Cancer Society is calling for a ban on the use of ornamental pesticides in the City of Hamilton. The use of pesticides to improve the appearance of lawns, parks and other outdoor settings provides no countervailing health benefit to society. The Society is very concerned about the potential long-term effects associated with ornamental pesticide exposure and believes that when an activity raises a threat of harm to human health or to the environment, precautionary measures should be taken, even if some cause-and-effect relationships are not fully established scientifically.
The implementation of a strong by-law will allow Hamilton to join neighbouring municipalities as a leader in health promotion and environmental protection. Cosmetic applications of pesticides should be banned immediately, and the Canadian Cancer Society encourages the City of Hamilton to respond to this public health concern by enacting a strong by-law.

**Additional Resources**

Canadian Cancer Society Hamilton-Wentworth Unit
Hamilton Pesticides Campaign website
www.cancer.ca/hamilton

International Agency for Research on Cancer
www.iarc.fr

Canadian Association of Physicians for the Environment
http://www.cape.ca/toxics/pesticides.html

The Coalition for a Healthy Ottawa
http://www.flora.org/healthyottawa/index.html

Canadian Environmental Law Association
http://www.cela.ca

The Ontario College of Family Physicians – Pesticide Literature Review
http://www.ocfp.on.ca

Pesticide-Free Quebec
http://www.mddep.gouv.qc.ca/pesticides/inter_en.htm

David Suzuki Foundation – Information on Pesticides
http://www.davidsuzuki.org/health/food/

Registered Nurses’ Association of Ontario
http://www.rn ao.org

Health Canada – Pest Management Regulatory Agency (PMRA)
http://www.hc-sc.gc.ca/pmra-arla/
Hamilton: A Safe Place to live; A Healthy Place for Families

Pesticides or Healthy Children

Caring for Children – Not Dandelions
Say “yes” to a Cosmetic Pesticide By-law

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September 13, 2007
The Ontario College of Family Physicians (OCFP) is a Chapter of the College of Family Physicians of Canada. We were established in 1954 for the expressed purpose of setting standards for the new and emerging specialty of family medicine and to oversee the establishment of the family medicine residency program in the medical universities across Canada. We are the body that oversees the education of medical students and family medicine residents and keeps the practicing family doctors in this province current so that they provide the best advise to prevent disease before it starts and to assess, diagnose and treat disease. Where exposures to contaminants like pesticides are concerned, we work in our offices and in emergency departments and we see first hand the health problems that can occur when we don't protect people, especially our children, from exposures to environmental hazards.
Health Canada Survey: 1992

Family Doctors are the most trusted
Source of Information on
Health and the Environment

In 1992 Health Canada conducted a Canada-wide survey and the public identified family doctors as the most trusted source of information on Health and the Environment. Family doctors stated that their knowledge in this area was weak. The OCFP established the Environmental Health Committee to gather the evidence on the impact of the environment on health and to develop the information into educational programs and materials to address this issue.

One of the first areas that the Committee tackled was pesticides due to the high level of concern and the ability to develop preventive strategies – one of which – the pesticide by-law you are here today to enact.
The OCFP’s Pesticide Review Report

Overview of the Methodology

Our landmark report on pesticides has received provincial, national and international acclaim. It is for that reason that the pesticide lobby group have tried so hard and so unsuccessfully to attack it – but the methodology is sound. We looked at how pesticides affect people not rats in a laboratory.

The investigators were academic family physicians from three Ontario Medical Universities – skilled in medical research. The evaluation team included epidemiologists, a PhD specializing in systematic reviews of the literature, a researcher/clinical oncologist from the Mayo Clinic, a genetic researcher at Sick Children’s Hospital, a PhD in reproduction epidemiology along with PhD students and residents in community medicine/public health who kept the academics on track.

Toronto Public Health Department under the leadership of Dr. Sheila Basrur of SARS fame conducted an independent review of the literature “Lawn and Garden Pesticides: A Review of Human Exposure and Health Effects Research” and found the same health effects that we found in our study. Toronto passed a By-law based on the evidence from its own Health Department.
Pest Management Regulatory Agency (PMRA):

Response to the OCFP's Report

The pesticide lobby group will try to tell you that the report has been criticized in the UK. The PMRA (Health Canada's branch that regulates pesticides) felt compelled to respond to the OCFP report: "The PMRA agrees with the recommendation of the OCFP report that Canadians can and should seek opportunities to minimize their exposure to and reduce their reliance on pesticides".
Safe When Used According to Direction: Children Don't need Directions

The Pesticide Lobby Group will try to tell you that pesticides are safe when used according to directions. Children do not read directions. This is Ryan. He is our adopted son. When he was 2, we went for a walk and I stopped to talk with neighbours. I lost sight of him for a moment. When I looked around, he was sitting on a neighbour's lawn beside one of the "poison" signs that the pesticide industry puts on lawns when they spray. (If pesticides are safe, why is signage like that necessary). Ryan was sucking on a ball that he had found on that toxic lawn.

I did what every mother does under the same circumstances – I panicked.

I ran home with Ryan, I stripped him of his clothes, gave him milk to drink, put him in a bath tub and scrubbed him down. I called Sick Kids' Poison Control Centre. They advised me that I had done all that I could do – but I did one more thing, I worried – and here's why.
Principle Finding:

- Children & pregnant women are especially vulnerable to health effects but seniors and those with compromised immune systems are at risk as well.

The principle finding from the OCFP report was alarming — to us — the family doctors of this province.

Children and pregnant women and their fetus are especially vulnerable to the health effects. But don’t forget that seniors and all those with compromised immune systems are at risk as well.
• Pesticide exposures are associated with
  • brain cancer
  • prostrate cancer
  • kidney cancer
  • pancreatic cancer
  • non-Hodgkin’s Lymphoma
  • leukemia

The principle findings of our review are:
• Many studies reviewed by the Ontario College show positive associations between solid tumors and pesticide exposure, including brain cancer, prostate cancer, kidney cancer and pancreatic cancer, among others.
• Previous studies have pointed to certain pesticides, such as 2, 4-D and related pesticides, as possible precipitants of non-Hodgkin’s lymphoma (NHL), and the findings of the College’s review are clearly consistent with this.
- Children are exposed before birth & during the vital early years to low levels of pesticides in their food & environment
- Few studies on the long term effects of these exposures
- Paternal pesticides exposure ↑ kidney cancer
  ↑ brain cancer
- Non-Hodgkin’s Lymphoma & Leukemia

In spite of the fact that children are exposed before birth, during the vital early years and throughout their lifetime to low level of pesticides, few studies have been undertaken to address the long term effects of these exposures. What we do know is that the developing child is susceptible to kidney and brain cancer if the father has been exposed to pesticides and to non Hodgkin’s Lymphoma & Leukemia.
• Occupational exposures in women
  • birth defects
  • fetal death
  • uterine growth retardation

• Occupational exposure to agricultural chemicals may be associated with adverse reproductive effects including: **birth defects, fetal death and** intrauterine growth retardation. We are very concerned about exposures of pregnant women to pesticides.
Principle Finding (continued):

- Nervous System Effects
  - depression/suicides
  - learning difficulties
  - Parkinson's Disease and other life-long conditions
    (such as multiple sclerosis)

We also found nervous system effects such as depression / suicides, learning difficulties, Parkinson's Disease and other chronic conditions such as multiple sclerosis.
Figure 9.1(c). Representative drawings of a person by 4-year-old Yaqui children from the valley and foothills of Sonora, Mexico.

This is probably the best illustration available. The drawing on the right is representation of children exposed to pesticides. On the left, the children were protected from exposures because they live high upon hills far away from where pesticides are used. Early ability to draw is associated with life long ability to learn quickly.

Give the children in your community the “Best Start” possible by protecting them from inappropriate and unnecessary exposures to pesticides.
Dandelions

or

Healthy Child Development

With such profound evidence that pesticides are affecting our health, we urge you do to everything in your power to reduce the public's exposure to these chemicals and ensure that our environment is less contaminated with chemical pesticides.

Protect them by passing the Cosmetic Pesticide By-law.
PUBLIC MEETING REGARDING ANTI-PESTICIDES BYLAW IN HAMILTON WENTWORTH

Thursday, September 13th, 2007-09-09

Hi, my name is Melissa. I'm a 30 year old, first time mother, who is concerned about the use of pesticides in Hamilton and surrounding area. I became concerned over 2 years ago when I read information regarding pesticides and pregnancy. After doing some of my own research, I was shocked to find out the effects of pesticides on human health.

What I found most alarming was the direct link of pesticides and childhood leukemia, and that children are 6 times more likely to be harmed by the effects of pesticides than adults. I would like to take my daughter to a park where she can play on the playground equipment and grass without being exposed to this toxin. I would like to take my daughter for a walk in my neighbourhood without having to inhale this toxin as I pass by someone's lawn.

Last year I came across Green Venture's website. This organization provided me with pesticide-free gardening booklets and pesticide–free lawn signs, which I handed out to several neighbours. The majority of my neighbours do not use pesticides, which is very promising. For those that do spray pesticides, I have informed them that there are alternatives to controlling weeds. There are lawn care companies that provide organic pesticides that are relatively safe. I was shocked at how many people did not know the effects of pesticides. Once I informed them they have decided to stop using pesticides all together or switch to an alternative and safer method. Many people are being told by lawn care companies that their pesticide is safe. This is incorrect and misleading. Pesticides may be safer now than they were 20 years ago, but they are still hazardous to human health. Let's remind ourselves that they are a poison, and we all know that poisons are not safe. A few months back, I was in contact with David Suzuki and unfortunately because of his hectic schedule he was unable to be here tonight, but asked that I read his note.

More than 127 Municipalities across Canada have banned the use of cosmetic pesticides. I would like Hamilton to become a pesticide-free city and I know I am not alone. Our city is home to one of the best Children's Hospitals and Cancer Centres. Therefore, it would benefit the health of our community and polish up our image as a city that is concerned for our children and overall human health.

In the spring I created a petition in support of Hamilton City Council's initiative to develop and enact a City of Hamilton bylaw banning or restricting the use of cosmetic pesticides. I collected more than 1500 signatures and it was only in circulation for 3 months. I would like to forward this petition to the City Clerk's office. And finally, to Mayor Fred Eisenberger and all Members of Council, please take this into consideration when voting on this bylaw, and also continue to educate not only ourselves, but the public as well on the harmful effects this toxin has on our children, grandchildren, as well as our pets.

Melissa Iannace, Hamilton
Dear Ms. Iannace:

Thank you for your informative letter and best of luck in the meeting with city council. I wish I could accept the many invitations I receive to take part in such events but it is simply impossible with my schedule. Actually, my calendar is filled until next year.

Please, when you make your presentation, point out that Hamilton has major pollution problems from industry and so it is urgent that you not simply add more to it. There are dozens of communities that despite enormous campaigns by pesticide lobbyists, are banning cosmetic pesticides. Hamilton should join up with a growing movement. An entire province, for heaven's sake, has banned such pesticides. Good luck. David Suzuki

Sent via: Elois Yaxley, Executive Assistant to David Suzuki
My name's Mark Coakley.

I'm the chair of Environment Hamilton. The use of cosmetic pesticides in residential areas is a top priority for Environment Hamilton. We have no plans to try to restrict farm pesticides.

I work as a litigation lawyer. A lot of my pro bono environmental law work has been against the city. I hope I won't ever need to do that again.

And I am a home-owner who takes pride in my healthy, natural and beautiful lawn.

Some people have been throwing around the term "property rights" in the debate over cosmetic pesticides. Their attitude seems to be "I can do anything I want on my land and my neighbours be damned".

That attitude goes against Ontario law and tradition.

Property rights are not absolute. If they were, there would be no zoning, utility easements, or fire bylaws. Any homeowner could stage loud heavy-metal concerts on their front lawn every night.

The traditional approach to property rights does not protect property use that interferes with a neighbours property rights or with public health.

All rights must be balanced with responsibilities.

We have legal and moral responsibilities to our neighbours.

Common law property rights support this by-law.

First lets talk about trespass. Trespass usually refers to someone going on someone elses property without permission. But it also applies to someone who puts a foreign substance like pesticides onto someone elses property.

Because of spray drift, rainwater runoff, soil erosion, groundwater contamination, and sticking to the feet of people and dogs -- almost all the pesticides put on one property will move onto someone elses property. That is trespassing.

It does not matter that some people claim pesticides are safe.

A Canadian judge wrote: "To throw a foreign substance on the property of another ... is an unlawful act ... This ... does not involve any question of whether or not the spray may have been toxic or non-toxic, because even to have thrown water, or garbage, or snow, or earth tippings, or any substance on the property would equally have amounted to an act of trespass ..." [1]
In the past, most trespass cases dealt with substances that could be seen. Invisible poisons posed evidence problems. But new technology can identify even tiny amounts of chemicals, so pesticide trespass lawsuits are now easier to win.

Let's talk now about nuisance. Nuisance is something that damages someone's land or interferes with their quiet enjoyment of their land.

In 1611, an British judge said: "Every man must so use his own property, as not to do damage to another." [2]

Another old British case said: "If a man chooses to put filth on his own land, he must take care not to let it escape onto his neighbours land." [3]

A recent Ontario case said: "He who causes a nuisance cannot avail himself of the defence that he is merely making a reasonable use of his own property. No use of property is reasonable which causes substantial discomfort to others or is a source of damage to their property." [4]

It is not a defence to say that the activity causing the nuisance is legal, or that other people are doing the same.

What about property owners who enjoy using cosmetic pesticides? Isn't stopping them from doing what they enjoy a kind of nuisance? No. Allowing controversial chemicals to leave your property -- like having a heavy metal concert on your lawn at night -- is not "quiet enjoyment".

With nuisance, you have to prove harm. The long-term health risks from pesticides are a form of harm, but in court they pose evidence problems.

But the short-term health risk is easy to prove. Acute pesticide poisoning is caused by inhalation, eating, or direct contact with skin. The effects are immediate. Hamilton has over 65 reported cases of acute pesticide poisoning per year. More than half are kids. [5]

Pesticides getting onto my property harms my property, especially since my property is used by kids and a pregnant woman.

I ask you to protect residential areas from chemical trespass and chemical nuisance. This responsible by-law supports traditional property rights.

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Presentation to Hamilton City Council – September 13, 2007
By Dr. Caroline King (C.A.P.E.)

My name is Dr. Caroline King and I’m speaking today as a representative of Canadian Association of Physicians for the Environment (C.A.P.E.) CAPE is a non-profit group and in 2006 won the gold award at the Canadian Environment Awards for its work in pesticide education.

I’d also like to speak today as a Hamilton homeowner, and mother of a 4-year old girl. I live in a suburb in Dundas, which is generally a nice neighbourhood. In the spring, however, the air is often filled with the chemical smell of pesticides. Despite what some lawn-care companies may say, these substances do not stay in a localized area of someone’s lawn and they certainly are not harmless. These are dangerous man-made chemicals. They enter our bodies, whether we like it or not, through the air, from drift after spraying, through our food, from agricultural pesticide residue on fruits, vegetables and animal products and through our water, by leaching into our water supply from home, lawn, and agricultural use. To paraphrase a saying from the anti-smoking campaign, “Living in the non-pesticide section of a neighborhood is like swimming in the non-pee ing section of a pool”. We’re all exposed.

I’d like to borrow another concept from clinical medicine here; that of informed consent. We, as physicians, must outline the risks and benefits and alternatives of a particular treatment to a patient, so that they can make an informed decision as to whether or not to accept that treatment. But even if Neighbour A gives informed consent to pesticide use on his/her lawn, Neighbour B who lives downwind from A, currently, in Hamilton has no say in the matter.

Tonight, representatives from the Canadian Cancer Society and the Ontario College of Family Physicians have already outlined the specific health effects of pesticides, and I won’t repeat them here. What I’d like to do is highlight a couple of points from CAPE’s position statement on Synthetic Pesticides. (I have a few copies of the full statement for interested councilors, or it can be found on www.cape.ca)

“We believe that the best means to accomplish the goal of eliminating routine pesticide use includes the following…

- through all government pesticide regulation reflecting the following four essential elements: a) the precautionary principle (do not act without reasonable proof of harmlessness); b) the principle of reverse onus (the producer bears responsibility for safety); c) zero discharge and residual contamination (no persistent ecosystem residues); and d) closed (clean) production processes.
- Through all levels of government working steadily toward the abandonment of all synthetic pesticide use except in rare, urgent, critical situations”

In this way the passing of a by-law restricting pesticide use in Hamilton would be a small, but necessary step in protecting the health of its citizens.
Finally, one may well ask, if pesticides are so harmful to human health, why isn’t Health Canada or every single public health board banning their use immediately? Well, history shows us that the gears of medical science and government move very slowly. One only has to look at the example of tobacco use. There had been reliable evidence since the 1960’s of the link between smoking and of adverse health effects such as cancer and heart disease. And yet it has only been in the last couple of years that Ontario has banned smoking from public places. Let’s not wait 40 years to avert another toxic tragedy.

Caroline King, MD, FRCPC

caking_mcmaster@yahoo.ca
Position Statement on Synthetic Pesticides

Preamble

The large-scale use of synthetic pesticides has been taking place for only two and a half generations.

Beginning with the use of DDT during the Second World War (whose discovery earned entomologist Dr. Paul Mueller a Nobel Prize in 1948), the pesticide industry has grown rapidly, and at times even exponentially, up to the present day. Currently over 2.5 million tons of such chemicals, worth over US $30 billion, are applied to crops in every country in the world. Of this amount, 73% is produced by just ten multinational agrochemical corporations; five countries – France, the U.S.A., Germany, Britain and Switzerland – are the primary producing nations. Encompassing insecticides, herbicides, parasitocides, nematocides, growth regulators, fungicides, defoliants and dessicants among others, this wide-ranging set of approximately 100,000 compounds, 7000 of which are registered for use in Canada, have one thing in common; they are all designed to kill one or more often many species of living organisms, usually in a nonspecific manner. Estimates that less than five percent of pesticide formulations by volume reach intended target organisms may well be accurate, considering the inevitability of drift, routine pesticide use as prevention without prior confirmation of infestations, and incautious application. So-called 'inert' portions of formulations – composing up to 95% of many products – are often quite toxic in themselves.

Early on in their history, the development of resistance to chemical pesticides became a significant issue. The rapid multiplication rates of single-celled or other simple organisms makes it clear that such a problem is inevitable, but the speed with which resistance occurs has often surprised observers. Resistance to DDT was a major problem only five years after its introduction. Today multiple pesticide resistance is common, and new pesticides, like new antibiotics, are regularly produced by industry to address this problem.

The World Health Organization (WHO) estimates today – in figures that are widely accepted to be underestimates – that 200,000 people are killed worldwide, every year, as a direct result of pesticide poisoning, up from 30,000 in 1990. The WHO further estimates that at least 3 million persons are poisoned annually, many of whom are children. A study in England and Wales demonstrated that 50% of pesticide poisonings involved children under the age of 10.

Pesticides can be remarkably persistent in biological systems. The US Environmental Protection Agency has conducted the National Human Adipose Tissue Survey since 1976, measuring toxic compounds in human fat. In 1982 this study found DDE, the primary metabolite of DDT, in 93% of samples. A 1990 study of adipose tissue levels of toxic
compounds in autopsy specimens from elderly Texans found DDE, dieldrin, oxychlorodane and heptachlor epoxide in 100% of samples. These findings are particularly disturbing because DDT has been banned in the US since 1972.

Pesticides are also found far afield, in ecosystems considered pristine and far from active pesticide use. Osprey eggs in the Queen Charlotte Islands, polar bear fat in the high arctic, and the blubber of whales in all the oceans of the world are contaminated with pesticide residues, even though all these creatures live far from point sources of pesticide application. Water and wind, as well as the bodies of animals that serve as prey for others (including humans) higher on the food chain, are the universal vectors for pesticide dispersal. Highest on the food chain, human breast milk is of great concern because of high levels of bio-accumulated pesticides. Breast milk of Inuit women contains much higher pesticide levels than the milk of women in southern Canada, raising concerns about this most intimate and crucial form of human sustenance.

Two other factors make pesticides problematic for human and ecosystem health. First, many pesticides are not persistent in human or other biological systems. Therefore they may be difficult to measure in tissue or other samples collected more than a few hours after exposure, although their biological effects may persist for days, months or even years. Second, many pesticides undoubtedly have additive or synergistic effects with one another, especially when they belong to the same chemical class. Only recently have these two issues been acknowledged by legislators, with the 1996 US Food Quality and Protection Act being the first major enactment anywhere in the world that takes the latter fact into consideration.

A further health issue regarding pesticides has emerged in the last decade. This is the demonstration that many chemical compounds, among them many pesticides, have hormone-like effects in biological systems, effects that were previously unsuspected as occurring on such a wide scale. During the last four years, the US Environmental Protection Agency (EPA) has been designing a first-ever program for analyzing these effects. The work has proceeded so slowly, however, despite a legislative mandate to act speedily, that the EPA itself is now being sued for dragging its feet. The Canadian government, lacking legislation for examining any adverse effects of pesticides, relies on manufacturers to supply such evidence.

**Rationale for a CAPE Position Statement**

As a result of the unquestioning trust that the population at large has placed in the scientific community, the commercial sector and regulatory agencies in the past, pesticides have become dispersed on a massive scale throughout our global ecosystem, without adequate testing for adverse effects in humans. In what has been called a massive, uncontrolled, global biochemical experiment, they are now essentially universal in surface waters, soils and biological systems. Because of their fundamentally toxic nature, pesticides are unlikely to be absolved of their demonstrated negative role in the health of humans and biological systems in general. In fact, it can be logically inferred that their deleterious impact will eventually be shown to be far more extensive than what is known at present, because so much research has yet to be done on the full range of toxicity potentialities.

Physicians are ill-trained to diagnose the adverse effects of pesticide exposures. Because there is no mandatory requirement for reporting actual or suspected pesticide poisonings, little confidence can be placed in many aspects of estimates of the public health effects of
pesticide accumulation in local or regional ecosystems.

However there is growing evidence that the health of future generations may be severely harmed by pesticides, alone or in combination with other toxic chemicals now permeating the global ecosphere. The fetus and the newborn child, in particular, appear to be uniquely sensitive to the harmful effects of pesticides and other toxins. Children, it has often been said, are not simply small adults. They are beings with uniquely vulnerable physiological processes. They incorporate ingested or inhaled substances into their growing bodies far more avidly than adults; these substances can profoundly influence their unique developmental processes, and induce proportionately greater acute and chronic toxicity.

For the above reasons, the Canadian Association of Physicians for the Environment feels it is important for us, as concerned clinicians, to lay out clearly what we believe to be the path for ethical scientists, medical or otherwise, to advocate on behalf of Canadian society. We believe that in such a statement, we must avoid ambiguity. We believe that we should likewise avoid clinging to banal certitudes. Instead, we must speak in a balanced and responsible way about the future direction society must take to avoid a possible looming toxic tragedy.

**Statement**

Reaching the goal of pesticide elimination cannot be accomplished without a dramatically increased support program for farmers and other growers who are prepared to convert to sustainable growing practices, including cessation of pesticide use. We believe that the best means to accomplish the goal of eliminating routine pesticide use is as follows:

- through an immediate and substantive increase in funding and practical support for research and information dissemination concerning alternative, nontoxic methods of pest control, coupled with strong market incentives for non-chemical lawn and garden care contractors and product suppliers.
- through the development of new and imaginative legislative initiatives and clear-cut and substantive market incentives (including tax shifting) to support and encourage the rapid expansion of organic growing practices in all parts of the country; at all levels of government. This must include an essentially cost-free, uniform, nationwide certification process for new and already established organic growing operations.
- through the Federal government and its regulators immediately moving towards a legislated end to cosmetic pesticide use within two years, as recommended by the House of Commons Standing Committee on Environment and Sustainable Development. (Cosmetic uses encompass lawn and decorative garden management, and the noncommercial growing of food crops.)
- through the Federal government legislating, for the Pesticide Management Regulatory Agency, an increasingly restrictive regulatory framework governing the use of synthetic pesticides. This would begin with the most toxic substances, but ultimately include all synthetic chemical pesticides and 'inerts' unless needed for critical, short-term, emergency situations. Three initial steps in this direction must include: 1) the immediate elimination of the most toxic pesticides, as determined by an independent scientific panel; 2) the rapid introduction of full disclosure of ALL ingredients in pesticide formulations; and 3) the establishment of an independent office for the collection and public disclosure of all reports of proven or possible adverse effects resulting from pesticide exposures.
through all government pesticide regulation reflecting the following four essential
elements: a) the precautionary principle (do not act without reasonable proof of
harmlessness); b) the principle of reverse onus (the producer bears responsibility
for safety); c) zero discharge and residual contamination (no persistent ecosystem
residues); and d) closed (clean) production processes.
finally through all levels of government working steadily toward the abandonment
of all synthetic pesticide use except in rare, urgent, critical situations.

References

6. Crinnion WJ: op. cit., p. 53
7. Lappano S: Personal communication. July 25/00
Hamilton Draft Pesticide Bylaw Meeting –City Hall–Sept 13, 07
Submission From Rashne Baetz, Dundas 905-628-1140

I appreciate the time and effort of the Pesticide Subcommittee. I feel we need to take a bolder stance in favour of human and environmental health – rather than moving cautiously.

I’d like to share my experience both as an environmental engineer and as a former member of Dundas Town Council 10 years ago. No other issue brought out more people to Dundas Town Council in the 3 years I was there than the pesticide issue – a wide crosssection of people who supported eliminating pesticide use.

Dundas changed its way of taking care of its greenspaces from IPM starting in ’94- which still resulted in a fair amount of pesticide use-- to a policy using preventative cultural practices adopted in ’98 with the goal of eliminating pesticide use.

We found good results with the changes that were modeled on the Plant Health Care program which had been successfully used by the City of Waterloo. Waterloo found that after eliminating pesticide use, their cost of taking care of an acre of greenspace actually decreased by 42% over 6 years from ’91 to ’97.

The key difference between the Plant Health Care program and the IPM you are suggesting is that the Plant Health Care program is preventative—it is like preventative medicine rather than treating the symptoms-- which never resolves the underlying issue. For example the underlying issue may be poor soil that needs more organic matter.

When we do full cost accounting and include the cost of health care due to an increased toxic load on our bodies from pesticides, it is clear we need a tougher bylaw.

In addition replacing IPM with the Plant Health Care Program, I would also ask that the Pesticide Action Threshold Level Guidelines -- in Schedule C be eliminated –it is another way excuses will be made to make exceptions.

And the exceptions in 3.22 (e) and (f) golf courses and bowling greens and marking sportsfields should also be eliminated from the bylaw. A U.S. Environmental Protection Agency study found Round-up in the soil a full year after the pesticide was applied. A 2004 study at the University of Ottawa
published in the *Journal of Toxicology & Environmental Health* points to links between pesticides used on golf courses and cancers in humans and wildlife.

What about the health of the pesticide applicators? What about our children who play on sportsfields and lawns? Studies exist linking pesticide use to developmental and neurological impacts on children. Is it worth it to have the perfect turf and harm our health? It is time to take a strong stance and move forward quickly on this issue. Thank you.
Speaking presentation to the City of Hamilton, Board of Health, September 13th, 2007, Made by Christine Brown, on behalf of the Hamilton Coalition on Pesticide Issues.

Thank you, Mayor and Councillors, for this opportunity to speak. Thank you, Board of Health and Pesticide Sub-committee, for your work in bringing this draft bylaw forward. Thank you, members of the community for support.

I care deeply about this issue, as many of you know. Concern about pesticide use is now a big piece in the bigger picture of health and climate change.

In 2002, I spoke, on behalf of HCPI, along with more than 40 others, urging the City to reduce pesticide use on public lands. At that time, the public pushed the envelope: many said, “Please give us a bylaw to phase-out pesticides on private property.”

The Parks Department began asking for money so that a Plant Health Care Program could be carried out in 2002. The City needs to make that money available to support this change. The City’s education program, “Naturally Hamilton”, needs to be more visible; perhaps more money needs to support people through this change, too. A 2004 study, conducted by Cullbridge Marketing and the Canadian Centre for Pollution Prevention reported, that pesticide reduction requires both education and a bylaw and that education must have a strong horticultural component. “Bylaws/laws have achieved greater reductions in pesticide use than education programs alone.” Further, “A combination of public education and enforcement is required to ensure compliance with bylaws and legislation.”

I propose the following changes to the draft bylaw itself.

I recommend the bylaw be oriented to the PHCP, not IPM. In short, the difference between the two has been described by the City of Toronto, as PHCP being a “focus on proactive plant health, and IPM, as reactive pest control”. The Plant Health Care Program was developed by the City of Waterloo in 1996 and operates with success on their public lands. The PHCP is committed to ten steps of best horticultural practices without the use of pesticides. (see footnote on contents of PHCP)

To support this orientation to PHCP, I recommend a phrase that comes from Toronto’s interim report on the success of its bylaw.
In place of the “Whereas” referring to IPM. Make the following change:

And, Whereas, the City of Hamilton wishes to promote the Plant Health Care Program as a pesticide reduction/restriction strategy it will endeavor to”... raise awareness and support professionals and homeowners on adopting pesticide alternatives.” Including those maintaining City parks and sports fields. Evaluation of their bylaw indicates that “It is essential that the Board of Health continue to support residents, businesses, retailers and licensed pesticide applicators to comply with the bylaw and reduce pesticides in favour of natural lawn and garden care alternatives.”

please turn over……
A Plant Health Care Program requires patience and some time to establish healthy soils—
and the outcomes are worthwhile.

I have no trust in a bylaw that proposes management through IPM. Companies that abide
by IPM currently are already abusing the practice. If you buy the services of a “lawn care
package deal”, you will get the chemicals used at some point in the season. I have seen
and heard applicators of IPM accredited companies speak of using chemicals as
preventive measures, proceeding to spray on windy and smog days, and whether or not
there is even a weed present. I have no confidence that with IPM, alternatives or
preventive measures will be even considered before chemicals. Infestation thresholds
invite a judgment call, open to contest, and if you wait long enough or do nothing you
will be able, eventually, to use chemicals. There are always options for how to maintain
lawns and gardens.

Let’s make it our goal to eliminate the non-essential use of pesticides within the
geographical boundaries of the City of Hamilton. Include public lands, as it is defined,
and respect the governing bodies for the practice of farming. (Farming and Food
Production Protection Act, SO.1998)

This draft bylaw begins with the message of promoting a pesticide–free City, and then it
back tracks. It gives too many exemptions beyond those needed to protect health. Those
exemptions are in the words “infestation” and “thresholds”, described in Schedules “C”
and “D”. It offers the chemical tool when there are still options. Aphids and ants can be
managed by various other means. Even Poison Ivy: I remember the late Henry Koch,
from the Guelph Arboretum, saying, that signage was the preferred option to chemicals
on Poison ivy. Good signage tells people what it looks like and then they can protect
themselves from it. Schedule “D” therefore, needs to remove aphids and ants from the
list. Bees, wasps, hornets, mosquitoes, fleas and ticks could be removed as well, unless
they pose a “health hazard”. Cockroaches apply to indoor situations. Rodenticides are
already covered in Schedule”A”. And, control of the gypsy moth? Even as it is covered
under the exemption of Bth, there are real questions and consequences of aerial spraying.

This bylaw needs to be clear and understandable. It is confusing and appears to
undermine its own endorsement of the Precautionary Principle. This draft allows for
pesticides in the management of golf courses, bowling greens, and marking lines on
sports fields. People using these amenities are obviously not being protected by the
Precautionary Principle. Many bylaws do not exempt golf courses and bowling greens
out-right. Instead, they are often given more time to comply. Still, they need to abide by
Ontario’s regulations that cite restrictions on windy days. We recommend during such a
phase-out, “no spray days” be smog days, temperatures of 25 °C, winds of 8 km/hr and
in advance of rain, as other cities have done.

The Pest Management Regulatory Agency (PMRA) under Health Canada states, “Never
spray a pesticide outdoors if wind speed is more than 8 km/hr.”

Please go to next page......
The Ministry of the Environment states, "Winds over 10 km/hr can result in drift damage", and that "... the product should not be allowed to cause damage in non-target areas." This maximum fine of $5,000.00 would be consistent with our Open Air Burning Bylaw. I suggest we do the same with the Pesticide Bylaw and be more educational than punitive.

My last word on the date of enactment: Let’s start it January 1st, 2008. The public, retailers, and service providers all know this is coming down the pipe. If we wait we will again be exposed to a last rush on pesticides much like the rush on Scotch Guard just before it was taken off the market.

This planet is common ground. Let’s eliminate the stress from pesticides that affects us all.

Please include our work in redrafting this Pesticide Bylaw. Thank you.

References:


3. The PHCP is committed to prescribing the best horticultural practices that phase out the use of chemicals. The PHCP program has ten components:

   Monitoring/Scheduling, Mowing, Fertilizing, Aeration, Topdressing, Overseeding, Irrigating, Dethatching, Alternatives, and Education/Training. These are consistent with healthy lawn care practices described in the City’s education program, “Naturally Hamilton”. PHCP offers a how-to process that provides healthy soil for healthy plants, reduces water consumption, waste production and helps to ensure problems are prevented. It also works on the premise that problems arise when plants are under stress, so it works to understand and reduce those elements.


**“The right to enjoy good health and protect the environment takes precedence over the right to use cosmetic pesticides.” “Pesticide use is a community standard issue”, likened to other issues: wearing seatbelts, not drinking and driving, smoking bans, and watering restrictions.**


8. *Sports field markings: Rob Killins, Sports & Outdoor Programs Lead Hand Environment & Parks Services City of Waterloo (519) 725-0511 x16 RKillins@city.waterloo.on.ca.*

My name is Sapphire Singh and I am representing Green Venture; a non-profit organization specializing in outreach and education aimed to help residents improve public health through environmental conservation.

We are the agency responsible for the current pesticide reduction and elimination education program called Naturally Hamilton. Green Venture developed and continues to deliver this program on behalf of, and in close collaboration with the City of Hamilton’s Public Health department.

We would like to thank you all for this opportunity to address Council on this highly polarized public health issue.

Some of our community leaders have publicly referred to the cosmetic pesticide issue as an “environmental issue”. Although this issue does adversely affect environmental health, it is important to remember that this issue is predominately a public health issue.

This fact is affirmed as pesticides are regulated by the Pest Management Regulatory Agency, which is a branch of Health Canada.

It is further substantiated by public health branches from approximately 130 municipal governments across Canada enacting pesticide bylaws banning or restricting cosmetic pesticide use to protect their citizens from the health risks associated with the use of these chemicals.

Please also consider the multitude of health organizations from across Canada that support enacting cosmetic pesticide bylaws including:

- Canadian Cancer Society
- Canadian Pediatric Society
- Canadian Public Health Association
- Learning Disabilities Association of Canada
- Various Lung Associations from across Canada
- Breast Cancer Prevention Coalition
- Ontario College of Family Physicians
- Ontario Public Health Association
- Registered Nurses Association of Ontario
- Allergy Asthma Information Association
- Canadian Institute of Child Health
- Canadian Liver Foundation
- Canadian Nurses Association
- Canadian Federation of University Women
- Humane Society of Canada
- Various Medical Officers of Health from across Canada

These facts demonstrate that the cosmetic pesticide issue is fundamentally a public health issue, and additionally, an issue of environmental significance.
As you are aware, Green Venture is responsible for coordinating the Naturally Hamilton pesticide education program. Our main purpose for speaking today is to request that council enact a pesticide use bylaw for two reasons:

1. To protect public health, and
2. to maximize the success of our education efforts and ensure the greatest possible reduction of chemical pesticide use in our community.

The use of a majority of chemical pesticides comes with an associated risk to human, pet, and environmental health. Green Venture strongly believes that cosmetic pesticides are completely unnecessary in order to achieve and maintain truly healthy lawns, gardens, and soil health.

We agree with the majority of lawn benefits presented by the landscaping industry, such as:

- lawns provide oxygen and absorb carbon dioxide,
- they prevent erosion,
- lawns help prevent flooding and stormwater run-off,
- they filter harmful particulates out of the air, and
- lawns provide cooling in hot weather.

Unfortunately, these benefits are compromised by the choices some of us make when it comes to lawn maintenance. Chemical pesticides and fertilizers, excessive watering, and gas-powered equipment all contribute to air pollution, water pollution, and unnecessary exposure to harmful substances.

Organic lawn care is simple and when practiced correctly it maintains beautiful lawns and gardens without compromising human health.

Organic lawncare encourages healthy soil and plants and, in addition to providing all of the benefits of lawns I listed a few moments ago, they also provide the following:

- organic lawns are more resistant to weed and insect infestations,
- in most cases, organic lawns reduce maintenance requirements leaving more time to spend on other lifestyle choices such as family,
- organic lawns require less frequent watering, and
- most importantly, organic lawns pose nominal, if any health risks to humans, pets, and the environment.

It is Green Venture’s opinion, one which is shared by a majority of, and continually increasing number of Hamiltonians, that cosmetic pesticides are unnecessary and harmful.

A few years ago, the City of Hamilton adopted the precautionary principle and voted to enact a pesticide reduction and elimination education program. Green Venture was selected to develop and deliver this program with the primary goal to help Hamiltonians reduce or eliminate their cosmetic pesticide use.

If Hamilton is truly concerned with reducing chemical pesticide use among its residents and protecting public health, then Green Venture would like to draw your attention to two of the only reports that we are aware of that summarize the effectiveness of:

1. bylaws on their own,
2. education programs on their own, and
3. a combination of both bylaws in addition to education on chemical pesticide use reduction.
The first report we would like to draw your attention to is named: Lawn and Order; A Review of the Literature on Effective Strategies for Reducing Outdoor Residential Pesticide Use. This report was written by Dr. Leslie Jermyn for Toronto Public Health and the University of Toronto.

The objective of this report was to "...develop the means to evaluate the impact of municipal by-laws in conjunction with outreach and education campaigns, in reducing pesticide use and exposures..."

This comprehensive report states within the executive summary that: "...to effect behaviour change (over the short- to medium-term) requires a legal prohibition on pesticide use. To be effective, this must be accompanied by information and education campaigns..."

The conclusion of the report reads as follows:
"In the end, when addressing such a complex issue, neither command and control [bylaws] nor educating for voluntary compliance works in isolation. Both types of intervention are necessary to effect change that is both immediate...and sustainable."

The second study we would like to draw your attention to was conducted by the Canadian Centre for Pollution Prevention and Cullbridge Marketing in 2004. This report summarizes interventions in residential outdoor pesticide use around the world.

It focused on the activities of nine selected communities in Canada, the USA, Denmark and Germany. This study found that "...in Canada, communities with by-laws had achieved high reduction while those without had only achieved marginal to low reductions."

Based on the information provided in these reports, in order to achieve maximum chemical pesticide reduction among homeowners, a bylaw must accompany an education program.

Education is not enough; a bylaw would help City of Hamilton's Public Health and Green Venture achieve maximum impact with our education program.

Before our closing statement, we would like to make two brief observations.

We have heard some community leaders state publicly that a pesticide bylaw would be unenforceable and thus, rendered ineffective. Let us all consider for a moment the pet waste bylaw; it would be safe to say that a vast majority of residents would support such a bylaw, yet we do not have countless enforcement officers following pets throughout the city waiting for infractions. The pet waste bylaw articulates to residents that allowing your dog to go on the sidewalk without cleaning it up is an unacceptable practice. It also gives officers the authority to penalize repeat offenders, which are no doubt reported by fellow residents. There are many advantages to bylaws that go beyond their apparent enforceability.

A pesticide bylaw would support education efforts and indicate to residents that the City of Hamilton takes this issue seriously.
Green Venture
Naturally Hamilton Program

This point leads to a second issue that Green Venture would like identify.

There seems to be an alarming exemption within the draft text of the proposed bylaw; specifically Subsection 3.2 which states:
"Despite the prohibition set out in Subsection 3.1, a person may apply a pesticide for any of the following purposes, under the conditions as specified below:"

Item (d) within this subsection below reads: “To maintain public land…”

It is our understanding that this effectively exempts public property from this bylaw and allows city staff to continue to use chemical pesticides on city owned land. This contradicts the impetus of this bylaw as stated in Section 3.1: “No person shall apply or cause or permit the application of a pesticide within the geographical boundaries of the City of Hamilton.”

To the best of our knowledge, this exemption is not consistent with a majority of other municipal bylaws that specifically and deliberately include both private and public lands.

Green Venture feels that demonstrating leadership is of the up most importance; particularly with an issue as complex and as controversial this one.

We strongly urge you to reassess this exemption as it can only contribute to non-compliance and criticism from residents.

In closing, Green Venture encourages and supports council members to vote in favour of enacting a pesticide use bylaw. We wholeheartedly believe that it is only a matter of time until Hamilton enacts a pesticide use bylaw; the decision you must make is whether to vote yes and pass this bylaw now, or vote no and delay the inevitable.

Not only will a pesticide use bylaw help to protect public health, but evidence suggests that only a bylaw and an accompanying education program together can achieve maximum pesticide use reduction.

Thank you for your time.

Sapphire Singh
Naturally Hamilton
Green Venture
905-540-8787 x18
garden@greenventure.ca
www.greenventure.ca
www.naturallyhamilton.ca
Pesticide By-law Comments  September 2007

Chair & Board of Health Committee Members:

Thank you for the opportunity to comment on the proposed Pesticide By-law. From 1988 to 1994 I worked 30 - 40 hours a week as a volunteer on environmental issues in the Hamilton area, ranging from tree planting to waste reduction. I was responsible for environmental recommendations on The Town of Flamborough’s Growth Strategy and input/presentation to Vision 2020 - Hamilton-Wentworth’s Sustainable Development Initiative. I was also a member of the Western Lake Ontario Environmental Coalition, the Regional Environmental Advisory Committee and various other organisations. One common thread throughout those affiliations was the need to address pesticide use. I would like to commend all of the individuals who have worked on this issue for many years. I am pleased to see that the City of Hamilton has reached the final stages of a pesticide by-law.

For over 30 years I have been researching health and nutrition issues. Health and nutrition share a lot of similarities with the environment. Sometimes we choose convenience, but if we make a habit out of it, there are long term consequences. Our diets include hundreds of synthetic chemicals and so does our environment. To maintain good health and longevity we need to take a serious review of what we are doing to nature and ourselves.

Specifically I would like to make a few comments about two of the most common pesticides used that this by-law will prohibit; Merit (chemical name Imidacloprid ) and Sevin (chemical name Carbaryl). I have attached some excerpts from the manufacturer’s MSDS references.

The manufacturer states that both of these chemicals are highly toxic to bees. Beekeepers in Nova Scotia claim that these chemicals could be responsible for the declining bee population which has affected pollination of blueberries in that province. Similarly in France, the declining bee population has been blamed on Imidacloprid and in 1999 Jean Glavary, Minister of Agriculture in France exercised the “Precautionary Principle” and banned Imidacloprid as a sunflower seed treatment.

Also noteworthy is the MSDS chronic toxicological information which indicates thyroid and liver involvement. This is of particular interest to me as much of my research in the past year has evolved around the endocrine system particularly the thyroid gland. The human thyroid is very sensitive to synthetic chemicals even those in food and water additives. Our generation is beginning to show startling signs of damaged thyroid glands. Synthroid, a drug for hypothyroidism is now Canada’s number one selling prescription drug and thyroid cancer has the fastest growing rate of incidence of any cancer in North America. Thyroid problems and consequent endocrine disruption are the root of huge costs to our health care system as they can manifest themselves in many disorders including depression, reduced immune systems, allergies, fibromyalgia, cardiac problems and more. Any chemicals in our diets or environment that negatively affect thyroid function should be avoided or significantly reduced. Thyroid problems in the general public usually affect twice as many women as men.
Children are also more vulnerable to synthetic chemicals including pesticides as their kidneys do not clear toxins as well as healthy adults. David Suzuki's Pesticide Report called North Exposure reports that approximately 6000 acute pesticide poisonings occur annually and almost 50% of those are children under the age of six. Many studies have indicated there are also risks associated with pesticide exposure for children and pregnant women including Attention Deficit Disorder, birth defects and cancer.

On a positive note, I do believe we can have attractive landscapes without pesticides. It will take some re-education but just like making healthy lifestyle changes, there are rewards. I believe there are many good leaders in our community and on Hamilton City Council. This by-law is about leadership, responsibility and a healthy future for our City and those who live here. Thank you for taking action.

Respectfully,

[Signature]

Cindy Mayor

Waterdown

Encl. Selected pages of Material Safety Data Sheets for Merit and Sevin.
SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name: MERIT® 75 WP INSECTICIDE
MSDS Number: 102000007120
EPA Registration No.: 432-1314
Product Use: Insecticide for foliar and systemic insect control in turfgrass (including sod farms), landscape ornamentals, fruit and nut trees, and interior plantscapes.

Bayer Environmental Science
2 T.W. Alexander Drive
Research Triangle PK, NC 27709
USA

For MEDICAL, TRANSPORTATION or other EMERGENCY call: 1-800-334-7577 (24 hours/day)
For Product Information call: 1-800-331-2867

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous Component Name</th>
<th>CAS-No.</th>
<th>Average % by Weight</th>
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<tbody>
<tr>
<td>Imidacloprid</td>
<td>138261-41-3</td>
<td>75.00</td>
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</tbody>
</table>

SECTION 3. HAZARDS IDENTIFICATION

NOTE: Please refer to Section 11 for detailed toxicological information.

Emergency Overview: Caution! Harmful if swallowed, inhaled or absorbed through the skin. Causes eye irritation. Avoid contact with skin, eyes and clothing. Avoid breathing dust or vapor.

Physical State: solid powder
Odor: none
Appearance: light brown

Routes of Exposure: Ingestion, Eye contact, Skin contact, Skin Absorption, Inhalation

Immediate Effects:
- Eye: Causes eye irritation. Avoid contact with eyes.
- Skin: Harmful if absorbed through skin. Avoid contact with skin and clothing.
Material Safety Data Sheet
MERIT® 75 WP INSECTICIDE

Acute Oral Toxicity
male rat: LD50: 2,591 mg/kg
female rat: LD50: 1,858 mg/kg

Acute Dermal Toxicity
male/female rat: LD50: > 2,000 mg/kg

Acute Inhalation Toxicity
male rat: LC50: 2.65 mg/l
Exposure time: 4 h
Determined in the form of liquid aerosol.
(Actual)

female rat: LC50: 2.75 mg/l
Exposure time: 4 h
Determined in the form of liquid aerosol.
(Actual)

male rat: LC50: 10.6 mg/l
Exposure time: 1 h
Determined in the form of liquid aerosol.
Extrapolated from the 4 hr LC50.
(Actual)

female rat: LC50: 11.0 mg/l
Exposure time: 1 h
Determined in the form of liquid aerosol.
Extrapolated from the 4 hr LC50.
(Actual)

Skin Irritation
rabbit: Slight irritation.

Eye Irritation
rabbit: Mild eye irritation.

Sensitization
guinea pig: Non-sensitizing.

Subchronic Toxicity
In a 3-week dermal toxicity study, rabbits treated with imidacloprid showed no local or systemic effects at levels up to and including 1000 mg/Kg, the limit dose.

In a 4-week inhalation study, rats exposed to high concentrations of imidacloprid exhibited decreased body weight gains and changes in clinical chemistries and organ weights.

Chronic Toxicity
In chronic dietary studies in rats and dogs exposed to imidacloprid, the target organs were the thyroid and/or liver.

Assessment Carcinogenicity
In oncongenicity studies in rats and mice, imidacloprid was not considered carcinogenic in either species.

ACGIH
None.
NTP
Material Safety Data Sheet
MERIT® 75 WP INSECTICIDE

Reproductive & Developmental Toxicity
REPRODUCTION: In a two-generation reproduction study in rats, imidacloprid was not a primary reproductive toxicant. Offspring exhibited reduced body weights at the high dose and in conjunction with maternal toxicity.

DEVELOPMENTAL TOXICITY: In developmental toxicity studies in rats and rabbits, there was no evidence of an embryonic or teratogenic potential for imidacloprid. In both species, developmental effects were observed only at high doses and in conjunction with maternal toxicity.

Neurotoxicity
In acute and subchronic neurotoxicity screening studies in rats, imidacloprid produced slight neurobehavioural effects in each study at the highest dose tested. There were no correlating morphological changes observed in the neural tissues.

Mutagenicity
The imidacloprid mutagenicity studies, taken collectively, demonstrate that the active ingredient is not genotoxic or mutagenic.

SECTION 12. ECOLOGICAL INFORMATION
Environmental Precautions
Highly toxic to aquatic invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

Ecological Information
This chemical demonstrates the properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.
Material Safety Data Sheet
SEVIN® BRAND 4F CARBARYL INSECTICIDE

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name: SEVIN® BRAND 4F CARBARYL INSECTICIDE
Chemical Name: Carbaryl
MSDS Number: 102000004253
EPA Registration No.: 284-349

Bayer CropScience
2 T.W. Alexander Drive
Research Triangle PK, NC 27709
USA

For MEDICAL, TRANSPORTATION or other EMERGENCY call: 1-800-334-7577 (24 hours/day)
For Product Information call: 1-866-99BAYER (1-866-992-2937)

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous Component Name</th>
<th>CAS-No.</th>
<th>Average % by Weight</th>
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<tbody>
<tr>
<td>Carbaryl</td>
<td>63-25-2</td>
<td>43.00</td>
</tr>
<tr>
<td>1,2-Propanediol</td>
<td>57-55-6</td>
<td>5.00</td>
</tr>
</tbody>
</table>

SECTION 3. HAZARDS IDENTIFICATION

NOTE: Please refer to Section 11 for detailed toxicological information.

Emergency Overview: Caution! May be harmful by inhalation, ingestion, skin adsorption. Avoid contact with skin, eyes and clothing. Extremely toxic to aquatic and estuarine invertebrates. Highly toxic to bees.

Physical State: liquid opaque
Odor: mild
Appearance: white to beige
Routes of Exposure: Ingestion, Inhalation, Skin contact
Immediate Effects:
Eye: Causes redness, irritation, tearing. Avoid contact with eyes.
Skin: Harmful if absorbed through skin. May produce symptoms similar to those from ingestion. Avoid contact with skin and clothing.
Acute toxicity studies have been bridged from a similar formulation containing a similar percentage of the active ingredient, carbaryl. The non-acute information pertains to technical-grade carbaryl.

**Acute Oral Toxicity**
rat: LD50: 699 mg/kg

**Acute Dermal Toxicity**
male/female rat: LD50: > 4,000 mg/kg

**Acute Inhalation Toxicity**
male/female rat: LC50: 3.8 mg/l
Exposure time: 4 h (actual)

male/female rat: LC50: 15.2 mg/l
Exposure time: 1 h (actual)
Extrapolated from the 4 hr LC50.

**Skin Irritation**
rabbit: Slight irritation.

**Eye Irritation**
rabbit: Slight irritation.

**Sensitization**
guinea pig: Non-sensitizing.

**Chronic Toxicity**
Reversible cholinesterase inhibition occurred in chronic toxicity studies in rats and dogs. The principal organs affected in rats from long-term exposure to high-doses of carbaryl included the urinary bladder, thyroid, kidneys and liver.

**Assessment Carcinogenicity**
Carbaryl has been shown to cause tumors in laboratory animals in lifetime feeding studies.

ACGIH
Carbaryl 63-25-2 Group A4

NTP
None.

IARC
Carbaryl 63-25-2 Overall evaluation: 3

OSHA
None.

**Reproductive & Developmental Toxicity**
REPRODUCTION: Carbaryl was not a reproductive toxicant in a two-generation study in rats.

DEVELOPMENTAL TOXICITY: Carbaryl was not a primary developmental toxicant in rats and rabbits. Developmental effects were observed in both species but were considered secondary to maternal toxicity.

**Neurotoxicity**
Carbaryl caused transient neurobehavioral effects (e.g., tremors) related to cholinergic toxicity without correlating neuropathological changes in acute and...
A battery of in vitro and in vivo mutagenicity studies have been conducted on carbaryl. Collectively, these studies indicate that carbaryl poses only a slight mutagenic risk.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity to Fish
- Rainbow trout (Oncorhynchus mykiss)
  - LC50: 1.4 mg/l
  - Exposure time: 96 h
- Cyprinodon variegatus (sheepshead minnow)
  - LC50: 13.6 mg/l
  - Exposure time: 96 h

Acute Toxicity to Aquatic Invertebrates
- Water flea (Daphnia magna)
  - EC50: 0.00067 mg/l
  - Exposure time: 48 h

Toxicity to Other Organisms
- Mallard duck
  - LC50: > 5,000 mg/kg
  - Exposure time: 8 d
  - The value mentioned relates to the active ingredient. Dietary concentrations.
- Bobwhite quail
  - LC50: > 5,000 mg/kg
  - Exposure time: 8 d
  - The value mentioned relates to the active ingredient. Dietary concentrations.

Environmental Precautions
- Extremely toxic to aquatic and estuarine invertebrates. For terrestrial uses, do not apply directly to water, or to areas where surface water is present, or to intertidal areas below mean high water mark. Do not allow this product to drift on to non-target areas. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water.
- Highly toxic to bees. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.
Comments to Hamilton City Council re: Pesticide ByLaw
Thurs. Sept. 13, 8:40 pm
Submitted by Rita Bailey

Mr. Mayor, Councillors, Guests,

My name is Rita Bailey, I'm a resident of Ward 1, and I am strongly in favour of a Pesticide ByLaw. I believe that pesticides pose a grave risk to human health, especially the health of children; they endanger animal health; and they contaminate our soil and drinking water. To help you understand how I arrived at this position, I'd like to tell you a little bit about myself.

I am a retired school teacher and principal, an avid gardener, a pet owner and lover, and a member of my parish Social Justice committee. As an educator who worked with children for 30 years, I learned a thing or two about kids. First of all, they rarely read signs that are posted, and if they do, they seldom obey them. Second, they love to get down and get dirty and roll in the grass. And finally, they wash their hands and other body parts only when forced to do so. In all likelihood, by the time the average child arrives home from school or the sports field, they will have traces of pesticides on their hands, clothing and footwear.

In April 2005, the Ontario College of Physicians found, after an exhaustive review of scientific literature, links between pesticide use and brain cancer, pancreatic cancer, and leukemia in children.

In April 2007, the Canadian Paediatric Society, our leading authority on childhood illness, found that the lawn herbicide 2,4-D was linked to cancers, neurological impairment and reproductive problems, and they concluded that laws that restrict pesticides were prudent measures to protect public health.

And finally, the International Agency for Research on Cancer has found some pesticide ingredients to be known, probable or possible carcinogens, and should be restricted.

I am also a gardener, and as Program Co-ordinator of the Mount Hamilton Horticulture Society, I attend a lot of gardening workshops, seminars and conventions. I haven't heard a speaker in the last five years who recommended pesticides, and I know from experience that it is possible to have a beautiful garden without resorting to pesticides. It's a simple matter of educating yourself.

The City Of Toronto has excellent information on reducing pesticide use on their website ( toronto.ca/pesticides 416-338-7600 ), and they provide pamphlets and materials at all garden centres. In Hamilton I have found Green Venture to be an excellent source of information on organic methods.

I am 57 years old, and have arthritis in many joints, but I dig my weeds out with a knife, and if I can do it, anybody can.

To owners of lawn care businesses who are worried about declining profits, I say "Adapt to the changing times, that's what business is all about." Read, take courses, educate yourself and your employees. According to a recent Hamilton area study, only 13% of residents say they use pesticides, and of that 13%, half would stop if they were given information on other ways to control weeds. That means that 93.5% of Hamiltonians use or would like to use organic lawn/garden maintenance - and I think that's a huge business opportunity waiting for the right company with the right attitude.
Finally, as a strong believer in social justice, I believe we humans have a moral obligation to take care of the earth. Nothing that you put into the soil just disappears. It affects plant, animal, and insect life, and eventually ends up in our rivers, streams, and drinking water.

Let's take a look at Round-Up, a popular herbicide, often believed to be specific in its action, and less toxic than other herbicides. However, in 2000, a study of the Ontario farming population showed that exposure to glyphosate, the main ingredient in Round-Up, nearly doubled the risk of late spontaneous abortions. A study in France found glyphosate to be toxic to human placental cells, even when the concentration was 10x lower than normal agricultural uses. The pesticide was found to be a health concern by inhalation during spraying. It causes liver damage in rats. And a study in Iowa and North Carolina found a link between glyphosate use and multiple myeloma. All this linked to a chemical that is said to "disappear''.

For all of the above reasons, I would urge councillors to listen to the voice of science, (references listed below), listen to the voice of democracy (87% support pesticide ban in parks, 78% on private property), and listen to the voice of justice. Enact the bylaw restricting the use of pesticides.

References
Ontario College of Physicians - See Pesticide Literature Review
Canadian Pediatric Society - see website
American Journal of Epidemiology 2000, 146, 1025-36 "Male pesticide exposure and pregnancy outcome"
Toxicology and Applied Pharmacology 2005, 203, 1-8
Occupational Environmental Medicine 2003, 60, E11
Environmental Health Perspective 2005, 113, 49-54 "Cancer incidence among glyphosate-exposed pesticide applicators in the agricultural health study"
Presentation to Council: "Registered does NOT mean Safe: How the government has failed us" - fully referenced, bibliography at the bottom

Sept 13, 2007

I live in Ancaster.
I used to use pesticides on my lawn.
I felt safe in the knowledge that my government was regulating them...

...until fourteen years ago when I did a computer search on pesticides and health at McMaster’s Library and found a multitude of scientific studies in mainstream, peer-reviewed, scientific journals showing links between pesticides and cancer.

My faith in the system was shaken.
It was apparent that the government was not doing its job of safeguarding human health.

Background
Canada’s tool for regulating pesticides is called the Pest Control Products Act.
The government agency that registers pesticides for use is the Pest Management Regulatory Agency (PMRA).
Before 1995, pesticides had been registered by the Ministry of Agriculture and Agri-Food Canada. In 1995, registry of pesticides moved to the newly formed (PMRA), as an agency under Health Canada in order to increase the focus of pesticide registrations onto health - unfortunately it didn’t work.⁶

Both the Pest Control Products Act and the PMRA have come under heavy criticism over the last 10 years, not only from scientists, health care professionals, and environmental watchdogs, but also from two government appointed bodies: Canada’s Commissioner of Environment ³ as well as Parliament’s Standing Committee on the Environment. ³

Why “registered” doesn’t mean safe
Only last year, in response to public pressure regarding concerns raised by the aforementioned bodies, a newly revamped Pest Control Products Act finally came into force. As well it took until last year for the PMRA to finally begin a review of all pesticides registered prior to 1995 - some of these pesticides were so old, they registered over 50 years ago! As of February of this year only 60% were reviewed or undergoing review. 40% of them HAVE BEEN REMOVED FROM THE MARKET, had their permitted uses RESTRICTED, or have expired.⁷

As the government has demonstrated here, it has a track record of approving pesticides, only to later have to phase them out due to mounting health and environmental concerns.

Pesticides which have been approved for use by the government, but have had to be subsequently banned because of health and environmental concerns:
• Aldrin
• Dieldrin
• DDT
• Heptachlor
• Toxaphene
• Chlordane
• Endrin
• Dursban
• Diazinon
• Mecoprop.

You have probably used Diazinon and Mecoprop on your lawn.
Unbelievably, the PMRA allows these phased out/banned products to remain for sale on store shelves until completely sold! To further demonstrate the PMRA’s lax standards, there are still approximately 1,000 commercial pesticide products for sale in Canada today, that cannot be sold in other nations because of health and environmental concerns associated with their use.

Industry proponents talk about stringent testing etc. Keep in my that improvements made to the Act and the PMRA that are ONLY NOW being implemented from the new Act, shortcomings still remain:

1. There is an over-reliance on Industry “Science”:
   - PMRA relies upon studies financed by the Pesticide Industry. It does not conduct in-house lab tests.
   - Industry science is frequently not published in peer reviewed literature.
   - Industry science was not accessible to the public in the past, because it was considered as proprietary information. Even though the new Act now provides a public Registry for access to the industry’s science, is still excessively restrictive.
   - Because Industry says it is proprietary information, the PMRA does not disclose what the “inert” in a pesticide product consists of, claiming that it is proprietary information. Thus, the public does not know to what they are being exposed which may be toxic itself.
   - Industry science has been likened to “bought science”.

2. Some $8 million or 25% of the PMRA’s funding comes from the pesticide industry. Because the PRMA is under pressure to meet industry-driven timelines for registration and that 25% of its budget comes from doing these registrations, it means that activities that would help ensure public safety but do not pay their way, like re-evaluations and adverse effect reporting databases have historically been pushed to the back burner.

3. The PMRA does not necessarily know or nor does it evaluate the breakdown products of a pesticide. Breakdown products can be highly toxic.

4. There has been no tracking of the production and sales of pesticides in Canada. Sales will begin to be tracked next year.

5. The government doesn’t keep track of cases of acute pesticide poisonings (where adverse effects show up immediately after exposure). Poisonings are not considered a ‘reportable event’ so provincial health care systems do not consistently report or systematically monitor them.

6. As of May 2006 there were no Canadian licensed medical doctors on staff at the PMRA to assess the human medical consequences of pesticides.

7. The PMRA largely relies upon rat studies (from Industry). In 2004 an important finding was published in the prestigious journal “Nature”. This study found that rats have genes for detoxification of chemicals, and therefore rats are a poor model for toxicity testing - as humans do not have these genes. (That is the reason that rats can live in sewers and garbage dumps, and people cannot.) Note: one of the most controversial pesticides in use today is 2, 4-D. Dogs are much more sensitive to 2,4-D, but the dog data was put aside in favour of the more robust rats.

Criticisms and Conclusions from other Government Bodies:

1. **Office of the Auditor General of Canada’s Commissioner of the Environment (after conducting a comprehensive audit of the PMRA in 2003):**
Too many pesticides were given temporary registrations despite significant data gaps
Temporary registrations were too frequently renewed, without review
Ottawa could NOT honestly say that pesticide use in Canada is safe. “Ottawa is not
managing pesticides effectively, nor can it honestly say that pesticide use in Canada is
safe... The public is concerned about pesticide safety. After my audit, so am I.”

2. Parliamentary Standing Committee on the Environment (after hearing evidence from
every stakeholder or petitioner)

In conclusion, you cannot sit there in your seats secure in the belief that the pesticides being
applied to lawns and gardens across this city are safe. While our regulatory system is failing us,
we are all being exposed to these chemicals needlessly - all for the sake of a weed-free lawn. I
am asking you to step up to the plate and protect the health of the citizens of Hamilton.

Addendum:
Canadians Exposures to Pesticides
All Canadians are exposed to pesticides.
• A recent American study found pesticides in the cord blood of newborn infants.
• Even residues from pesticides banned years ago continue to be detected in the meconium of
newborn babies.
• Studies published by Environmental Defence (2005 and 2006) revealed that the bodies of
Canadians, including children, in all parts of the country, from all walks of life, are contaminated
by a toxic cocktail of industrial chemicals, including organochlorine pesticides and
organophosphate pesticide metabolites.

Bibliography:

1 Parliamentary Standing Committee on the Environment, “Pesticides Making the Right Choice” 2001,
http://cmte.parl.gc.ca/Content/HOC/committee/362/envi/reports/rp1031697/envi01/22-ch15-e.html#N263
section 15.14 and 15.15

“Follow up to “Understanding the Risks From Toxic Substances, Cracks in the Foundation of the Federal

http://cmte.parl.gc.ca/Content/HOC/committee/362/envi/reports/rp1031697/envi01/07-int-e.html

4 Pest Management Regulatory Agency, “Reevaluation Summary Table” http://www.pmra-
arla.gc.ca/english/pdf/re-eval/summarytable-e.pdf


arla.gc.ca/english/legis/transparencyqa-e.html#6

7. Dr. John Wargo, Our Children's Toxic Legacy: How Science and Law Fail to Protect Us from Pesticides,
Note Definition: “Bought science”, not to be confused with “junk science” or “sound science” describes studies
whereby unfavourable scientific test results are suppressed in order to support desired outcomes. In other
words, “he who pays the piper calls the tune.”

8. Wendy Sexsmith, Acting Executive Director of PMRA, during CTV Series "W5": episode “The Perfect
Potato” aired Oct 25, 2002
http://cmte.parl.gc.ca/Content/HOC/committee/362/envi/reports/rp1031697/envi01/24-ch17-e.html section 17.6

10. Auditor General of Canada's Commissioner of the Environment" Johanne Gelinas, from an interview conducted by the Globe & Mail, October 2003


Respectfully submitted by:

Laurel Harrison. Ancaster L9G 3Y8
The issue of pesticide use reduction is a public health issue similar to second hand smoke. We are now hearing warnings from health organizations, like The College of Physicians and Surgeons and scientists, like Dr. Suzuki, that there is growing evidence that pesticides have an adverse effect on human health. You just have to read the instructions on the box to wonder if using these products is worth taking the risks to have a real nice lawn.

I am surrounded by neighbors who are waging their neurotic chemical wars on the forces of nature, just to have the perfect lawn. I can chose to not expose my children to many hazards, like second hand smoke, but not when it comes to pesticides, there is no escape. How can I, and my children, enjoy the use of our yard when we are exposed to the residues of our neighbor's chemical assaults on dandelions? It has been pointed out that the effects of these chemicals on children are many times worse than adults because their bodies are growing. I believe I have the right to avoid exposure to these substances, particularly since the cosmetic use of these chemicals really serves no essential purpose. Lawn care companies are offering non-pesticide maintenance plans that produce a superior lawn in the long run.

The cosmetic use of pesticides for landscaping purposes is being eliminated in many Canadian municipalities, the same way smoking has been eliminated from our public spaces. Let our city join the other municipalities that have taken the lead on this important issue that affects our children's health.

Being in the company of the other leading communities on this public health issue will help to dispel the negative image of our city. Let us make Hamilton a better place to live.

Bruno Polewski, P.Eng.

cc: Councilor Lloyd Ferguson
Mayor Fred Eisenberger
Introduction

- Paul McIntosh – opposed to draft Pesticide Bylaw
- Bachelor of Applied Science – Chemical Engineering
  - University of Waterloo
- Family has lived in Carlisle for 9 years
- Three points of objection to bylaw:
  - Science
  - Logic
  - Public Consultation

Science

Science has not had a voice in the process:

<table>
<thead>
<tr>
<th>Science</th>
<th>Non-Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pest Management Regulatory Agency</td>
<td>&quot;Precautionary Principle&quot;</td>
</tr>
<tr>
<td>Federal Government Agency</td>
<td>Uninformed fear</td>
</tr>
<tr>
<td>2006 Pest Control Products Act</td>
<td>Scare mongering</td>
</tr>
<tr>
<td>$50 Million annual budget</td>
<td></td>
</tr>
<tr>
<td>500 staff including 150 PhD’s</td>
<td></td>
</tr>
<tr>
<td>Global network with other agencies</td>
<td></td>
</tr>
<tr>
<td>Not considered in formulating bylaw</td>
<td></td>
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</tbody>
</table>

Logic

Pesticide-related cancer deaths: "vanishingly small"

Statistical estimate of 20 pesticide-related cancer deaths per year out of a total U.S. cancer death toll of 560,000. Diet was estimated to be responsible for 200,000 of these deaths / tobacco 170,000.

Pesticide use for landscape – only 2-5% of total pesticide use in Canada

Agricultural use of pesticides:
- farmers can use pesticides not even available to homeowners
- agricultural use on foods we eat every day

So
How did concern with 2-5% of usage become a priority?
Public Consultation

The public has not been properly engaged:

*2006 Consultation Effort – Very Weak:*
- 10 days notice – poorly advertised
- Held at start of summer
- 87 participants out of a population of 500,000 – represents .02%

*The City Has Done and Can Do Much Better:*
- Cellfield water system upgrades of 2006
- Councilor McCarthy and Scott Stewart of Public Works Dept
- Ongoing opposition to the quarry
- Councilor McCarthy & staff

Both of these initiatives brought science and the public together

Conclusion and Recommendations

**Conclusion:**
Draft bylaw not in best interest of citizens of Hamilton

**Recommendations:**
1) Withdraw draft bylaw
2) Invite PMRA and other relevant science professionals to present to Board of Health / Pesticide Sub-Committee
3) Reformulate action plan to fully reflect science
4) Full public consultation / decision / implementation

Sources and Further Reading

1) Information package provided by Office of Hamilton City Clerk.
5) “Give Us DOT” – article by Dr. Sam Zaramba, Director-General of Health Services for Republic of Uganda – National Post June 13, 2007.
Mr Mayor, Councillors, Staff and Delegates:

I am speaking today on behalf of the Conserver Society of Hamilton & District, a grass roots organization in existence since 1969 focusing on education and action on environmental issues.

We are pleased that, five and a half years after the first hearing (Jan 2002), a draft Bylaw has finally made it to Council. I have attended the majority of the Pesticide Sub-Committee meetings as an observer and have been aware of all the information received, discussion and decision making that has occurred. We are supportive of the draft Bylaw as it is certainly a move in the right direction. However, there are some features with which we take issue.

A. DRAFT BYLAW -CHANGES NEEDED

1. Implement Plant Health Care programs

   The draft states that “the City of Hamilton wishes to promote Integrated Pest Management as a pesticide reduction strategy, and will endeavor to maintain all City parks and sports fields utilizing an Integrated Pest Management (IPM) program;”

   Unfortunately the use of the words IPM raises an image, and very often the actuality, of an approach that looks first at managing pests. If, instead, one uses the approach and the words Plant Health Care or “Integrated Plant Health Care” then the focus is on developing healthy soil, plants and trees which then withstand the impact of “pests”. Integrated Plant Health Care (IPHC) is a management strategy that includes Plant Health Care (PHC) and Integrated Pest Management (IPM) as functional components. IPM is actually a very small part of IPHC. The Cities of Waterloo (1) and Toronto are excellent examples of Integrated Plant Health Care communities, which also had been the plan of our own Parks Dept back in 2002. Although the PHC component got started in Hamilton, budget restrictions over the years appear to have pushed it into the background.

   To quote from reports from Toronto’s Board of Health and City Council Feb 2005 minutes, an Amendment regarding Pesticide Bylaw-Implementation states:
   1. “that the primary means of complying with the Pesticide By-law is through applying the methods of Plant Health Care (PHC),”
   2. “that if the use of non-exempted pesticides is justified, its use should conform to the principles of Integrated Pest Management (IPM),”

   We believe that the City should be taking the lead here, providing an example to citizens and developing the attitudes and training of its staff on Park and public land management. Instituting an Integrated Plant Health Care program as opposed to IPM is therefore very important.

   To quote from a communication with Toronto Parks staff (Doug Smith,Program Standards and Development Officer,Integrated Plant Health Care Section, Parks, Forestry & Recreation,) “There is a definite analogy of plant health to human health. This must be kept in the forefront in terms of a vision as to where we want to go. ---Plant Health Care cannot be separated out - it is intrinsic to IPM. ---IPM will fall apart without PHC. It supports the bigger picture. It requires a bit more “thinking outside the box”. Pesticides must be
used only as a last resort or there is NO business case for IPM. “ (3) Toronto has specialized PHC teams out in the field.

While a full scale IPHC program is something that Toronto Parks does not have as yet, but which is "a work in progress" that requires significant budget support, it continues to be a working objective.

A copy of the " INTEGRATED PLANT HEALTH CARE PROTOCOL for the City of Toronto" (which I am sure our Parks Staff are already aware of) will be forwarded to the Pesticide Sub-Committee as a reference only to help initiate some discussion of the topic.

This is an area where we should be building on the experience of other Cities and not starting from behind the post. Let's build something into the Bylaw that we can aspire to.

2. Stop the use of pesticides on sports fields. (3.2.2.e.)

Pesticides should NOT be used for marking sports fields. This is where children play! The very people we are trying to protect! There are very good examples of alternate methods. Using an Aquicide (hot water) machine as in Brampton or using a special paint as in Waterloo and Toronto. Waterloo is also able to make their playing fields multi-use by employing different colours of paint for different sports on the same field.

Irrigation must be installed in sports fields as was the intent of the Parks Dept back in 2002. This allows a proper Plant Health Care management system to be employed rather than having to resort to more frequent pesticide use.

This has been limited due to budget restrictions and lack of priority.

PLEASE MAKE NEW MARKING AND IRRIGATION SYSTEMS A PRIORITY IN THE NEXT BUDGET!

3. Decrease IPM Training Phase In time:

Given that the change to reduced pesticide in our community has been on the horizon for over 5 years, it is surprising to learn that only 2 local Lawn Care companies and one Golf Course in Hamilton are currently IPM accredited according to the Ontario IPM website. - (2). Many lawn care companies are now offering organic programs, but it often appears that sufficient efforts are not made to achieve a healthy soil before they suggest resorting to pesticide use. Another almost three years appears unnecessarily long to allow for IPM training certification given this has been on the horizon for 5 years.

4. Application of Pesticides (3.2.2 c)

There should be an addition here to cover prohibition at specific wind speeds and also temperatures.

5. Thresholds (Schedule “C” City of Hamilton – Pesticide Action Threshold Level Guideline)

If, in fact, thresholds are required, the City should be setting an example to citizens, not subject to a different set of thresholds.

If they are to be used, then some changes are required.

Regarding insect pesticide action thresholds It will be necessary to stipulate that non-toxic methods of insect control must be used first. This will eliminate any need for pesticide use in the vast majority of cases. The PMRA has an excellent sheet on the alternative's to pesticides which can be used
for grubs. The town of Wolfville, Nova Scotia, which uses a PLHC program, has even been using a strong vacuum to manage chinch bug infestations.

Also - please add people-friendly measurements as per below and increase the threshold for grubs:

OMAF Action Thresholds (from Toronto Bylaw)

<table>
<thead>
<tr>
<th>Grubs</th>
<th>Irrigated turf 15 larvae / 0.1 m² (approx. 1 sq ft)</th>
<th>Non-irrigated turf 5-10 larvae / 0.1 m² (approx 1 sq ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chinch Bugs</td>
<td>Any Condition 20 chinch bugs per 20 cm to 25 cm (8 inch to 9 inch) diameter can</td>
<td></td>
</tr>
</tbody>
</table>

6. Aphids - *(Schedule “D” General Pesticide Applications Outside the Scope of the By-Law)*

Aphids should not be listed here. I have not seen them listed in any other Bylaw. They can be managed very successfully with soap & water spray. Pyrethrins, although many bylaws omit them, have been included in the permitted pesticides list and therefore these can be used as a last resort if absolutely necessary.

B. EFFECTIVENESS OF BYLAWS

There have been comments about the effectiveness of Bylaws. One only has to look at the reports coming out of such cities as Toronto (5) and Halifax to see that they are working well. A survey carried out by Culbridge Marketing in 2004 found that Bylaws have achieved greater reductions in pesticide use than education alone. (6) They looked at a total number of 62 communities in North America and Europe and 9 in depth (of which Hamilton was one) The use of education and outreach programs alone are far less effective.

The addition of a Provincial Law to limit purchase of Pesticides will help (as in Quebec) but if that is achieved it will take several years to institute. We cannot hold children’s health in ransom.

C. EDUCATION

This leads me to education. Our organisation has provided public information regarding alternatives to pesticides for many years. The HCPI (of which we are a member) has also been very active since 2002 in a grant funded public education program. When the city’s education program “Naturally Hamilton” was commenced in 2005 we felt that education should no longer be our role. However it is very necessary for the City’s program to have a bigger public face. A search of the City website does not bring up the program and there is no reference to Pesticides on the Public Health site. Local Municipal offices seem unaware of the program as they cannot find it on the City website. The City of Toronto Public Health website is a good example of how this could be managed.

D. PENALTIES

While I understand that the penalties listed are as defined in the Ontario Municipal Act (Section 429) however the amounts listed for this Bylaw seem too draconian. Toronto has done well with a $5000 maximum fine. It was apparently established before the amendment to the Municipal Act allowed higher fines. Let’s start out with $5000 as the maximum. It can always be amended later if necessary.

In closing, we are recommending some changes to the draft Bylaw to better carry out the intent to reduce or eliminate the use of cosmetic pesticides in the City of Hamilton. I hope that the sub-committee will look
at the details included in this report and incorporate them into the New Pesticide Bylaw for Hamilton

I urge that, when the amended Bylaw comes back to Council, you will vote YES to protecting the health of Hamilton citizens and our ecosystem.

Thank you for your attention.

References
1. Waterloo: City of Waterloo, Parks Services Group 1999 presentation
   Rather than work against nature, The Plant Health Care Program was designed to work with it. By consistently employing a particular organic set of horticultural practices one can encourage vigorous healthy turf growth while having the smallest possible environmental impact. We can maximize the naturally beneficial qualities in turf. A healthy lawn is its own best defense against disease and infestation. The P.H.C.P. has allowed us to achieve outstanding results with our turf because we can now effectively target our resources, eliminating waste; organize our personnel for greater productivity; achieve a high level of quality control without depending on pesticides; dramatically enhance motivation and morale through employee empowerment. The program has ten component parts:
2. www.ontarioipm.com
3. Personal communication - Doug Smith, Program Standards and Development Officer, Integrated Plant Health Care Section, Parks, Forestry & Recreation, 101 Ridgetop Road, Toronto, M1P 4N9 Ph: (416) 396-5133 Fx: (416) 396-5127 e-mail: dsmith12@toronto.ca
4. Ed Lawrence - Retired head gardener to six Canadian Governors General and Prime Ministers: Aphid spray and ant control - From his new book "Gardening - Grief and Glory":
   Aphids, earwigs, mites, thrips etc
   • Mix 40 parts water with one part liquid soap (10 oz spray bottle plus one tablespoon of soap)
   • Spray plant thoroughly and leave on for 10 minutes
   • Rinse with spray of clear room temp water
   • Repeat 3 times over 10 day period
   Ants
   • Mix 2 cups weter with 1 teaspoon of boric acid and 6 tablespoons of sugar
   • Cut 6 lcm holes in the side of a plastic margarine-type container
   • Soak 2 cotton balls in prepared liquid and place in container, replace lid
   • Place in path of ants and leave for several weeks
From: Lisa Richter [mailto:richter@mcmaster.ca]
Sent: Wednesday, September 05, 2007 3:16 PM
To: Eisenberger, Fred
Cc: McHattie, Brian; Bratina, Bob; Morelli, Bernie; Merulla, Sam; Jackson, Tom; Duvall, Scott; Whitehead, Terry; Clark, Brad; Pearson, Maria; Mitchell, Dave; Ferguson, Lloyd; Powers, Russ; Pasuta, Robert; McCarthy, Margaret
Subject: RNAO - Support for proposed pesticide by-law

Dear Mayor Eisenberger and members of Hamilton City Council,

We understand that a Hamilton City Council meeting is scheduled for September 13, 2007, to solicit input from the public on the proposed Pesticide Use Bylaw. As the Hamilton Chapter of the Registered Nurses’ Association of Ontario, we are speaking on behalf of Registered Nurses in Hamilton, and the public whose health we serve to protect.

As you know, public support for pesticide by-laws is strong across the province, and the public wishes more protection from pesticides. If the by-law is passed, Hamilton would join a long list of Ontario municipalities with such protection, including Toronto, London, Markham, Oakville, Peterborough, Newmarket, Thorold, and Collingwood.

We would like to take this opportunity to voice our strong support for the adoption of the strongest pesticide by-law possible to eliminate the non-essential use of pesticides on public and private property, which would protect the health of Hamilton residents. In fact, we urge you to consider the Peterborough pesticide bylaw model.

As health professionals, we are concerned about the needless risk to human health posed by pesticides, and in particular, we are concerned about the risk to children, who are more vulnerable to pesticides and other toxins. We are very pleased that Hamilton Council is dealing with this serious issue, and look forward to living in a safer and healthier Hamilton after a strong pesticide by-law is implemented. You can count on the support of registered nurses as you seek to build a safer and healthier environment.

Yours sincerely,

Lisa Richter, RN BScN, MSc (c)
Hamilton Chapter, Executive
Registered Nurses’ Association of Ontario
September 13, 2007

Pesticide By-law Hearings, Hamilton City Council

Good Evening Councilors

I've been here before - the same agenda - and this canary is not getting any better. In fact it is rather a sick bird: this very day, September 13, with an East wind in my direction my neighbour had his lawn treated once again.

On a windy morning in late June, my neighbour, whose has a very large garden, doused it with a pesticide weed spray using a very large hose. My stinging tongue and the acrid smell alerted me to close my windows fast; but it was already too late. I had been poised again and there is no other word possible. The stinging tongue was quickly followed by brain fog and an awful feeling of powerlessness. I could not go out in my own garden (which is all ground cover) and I could not even go out to hang up my laundry. I did go to my car to get away. AWAY? There is no away; and if you can find it, how long can you stay there? There is no AWAY!

Two days later the neighbour on the other side did the same thing. Their sign read “Par 3”. It was the same situation: high wind in my direction despite the wind velocity regulations. Same tongue, same brain fog, same cough, same powerlessness and the same RAGE.

Within a week my immune system could no longer protect me and I had bronchial pneumonia, sinus and ear infection. I fled my house that week and took my pneumonia with me. For the next two and a half months to this very day I have been using antibiotics, puffers (at a $100.00 per puffer “uncovered”) vitamins, etc.. I have spent most of the summer looking for a place to lie down and cough.

Shortly after moving from Alberta to the chemical soup of the Golden Horseshoe and Hamilton I began to develop breathing problems, rhinitis, sinusitis, colds that lasted 15 to 20 weeks. COLDS? Finally I was diagnosed as having chemical allergies which meant for me - no pesticide, no oil-based paint, no new drywall, no synthetic clothing or rugs, no toxic cleaning agents, no filling my own gas tank, no sending clothes to the cleaners, no new car interiors, wearing a mask in traffic, and NO PESTICIDES.

I moved to Waterdown 25 years ago into an old neighbourhood. I canvassed my neighbours on two streets, explained my situation, and all but one agreed they would not use pesticides on their lawns. They did not and for a time I was better.

Neighbours changed and the spraying started again. A lawyer told us that private property may be private but the surrounding air is public domain; and that our
water supply into which pesticides run off is also public domain. Sounds like the "second-hand smoke issue" for which there is now a by-law prohibiting poisoning the air where other people breathe. And the by-law prohibiting open fires in urban areas.

A dry summer, not a dandelion in sight, and I get poisoned. To say nothing of the neighbourhood wildlife.

I'm heartened by the recent poll revealing that 77% of the citizens of Hamilton want this by-law passed. My neighbour says he will stop using pesticide spray only if the by-law is passed. He's the one whose lawn was sprayed to-day.

Thank you for your time.

Sheila Brown, the Canary
City of Hamilton. Meeting of the Board of Health.
7 pm City Hall, September 13th, 2007

Presentation on Draft Pesticide ByLaw

Good evening fellow Hamiltonians. My name is Dave Robinson and I am very much in favour of a bylaw to restrict and ultimately ban the use of toxic pesticides for non-essential purposes in Hamilton’s urban and rural communities.
Given the lateness of the hour I’ll keep my comments brief and avoid repeating points made by previous speakers.
For 30 years, I have maintained a large garden in Greensville which includes perennial borders, vegetable plots, shrubs, lawns and ground covers without using chemical pesticides and I have received recognition for gardening with nature during that time. Incidentally, I believe the outcome of the bylaw will result in the same success for homeowners that I have achieved by working with nature rather than against it.
As a preface to my comments on the draft bylaw I should mention that I taught chemistry for 35 years and in my career acquired a keen awareness and respect for toxic chemicals even though I was using them in a controlled and contained environment, conditions which do not prevail in the application of toxic pesticides by homeowners on their lawns and gardens. With my science background I view the need for a bylaw as a “no brainer” and long overdue in our city.
It never ceases to amaze me how some decision makers will be quick to find ten reasons for not making a change when there is one compelling reason to change behaviour.
A few comments about the bylaw.
1. Public Education.
I hope that public education which is to be part of the bylaw implementation will have some real teeth and will include more than a few pamphlets and notices in the local print media. In fact my experience in moving from attitudinal to behavior actions is
that the transition requires thoughtful implementation strategies which are often overlooked. People will need guidance and encouragement to wean their lawns and gardens off toxic pesticides and besides workshops it might be an idea to have homeowners who have practiced pesticide-free gardening for some time available for consultation and advice to help others move in that direction, especially in the early stages.

2. Infestation Levels.
I am concerned about the provision to use pesticides when a so-called infestation of weeds reaches 30% by area. Firstly this will not encourage people to refrain from using toxic pesticides even when the rate is below 30% and secondly will not encourage them to find alternatives to pesticides or better still to seek alternatives to the grass monoculture which with global warming is so inappropriate in our changing climate.

I note that in Schedule D spraying pesticides on trees is permitted and I question this exception given the downward trend in the health of trees and the likely increased spraying employed by homeowners with the accompanying drift of toxic pesticides onto their neighbour’s properties.

4. Addressing the “Big Picture”.
Finally we need to look at the big picture when drafting a final bylaw. With increased growth of human settlement around the shores of the Great Lakes we need to address pollution from all sources. Due diligence and applying the precautionary principle must be important tools in our planning for the future, especially in how we treat our natural environment.
I look forward to a pesticide bylaw becoming a reality in Hamilton sooner rather than later, and thank you for giving the citizenry an opportunity to speak on this issue.
Dave Robinson, Greensville, Ontario.
I am here tonight representing the Agricultural and Rural Affairs Advisory Committee for the City of Hamilton as past chairman and the Hamilton Wentworth Federation of Agriculture as the current president. I have farmed in the Stoney Creek area for over 50 years in dairy, fruit, and grain crops and have been involved in using pesticides in these crops and fruit for most of this time. Although the proposed by-law has a clause in it exempting agriculture, it was felt by these two groups that I should appear tonight to reinforce agriculture's position on pesticide use in the agricultural industry.

A pest is any harmful or troublesome organism. Pesticide is a general name for substances used to control pests like insects, weeds, diseases, or fungi. A weed is any plant which grows where it is not wanted. Weeds compete with other plants in the environment for food, water, sunlight, and space. Weeds should be controlled before they compete with the crop and before they produce seeds. Moulds, rusts, wilts can be controlled by fungicides. Fungicides are chemicals that can either kill a fungus or stop its spores from germinating. Insects and mites can reduce the quality and yield of many crops. They feed on the roots, stems, leaves, and fruit of growing plants. They can spread diseases from field to field. (i.e. Plum pox virus can be spread by aphids). The main reason to control pests is to produce plentiful, healthy food without undue waste.

The use of pesticides is necessary in most forms of agriculture today because of the larger scale of farms today. Many years ago, there was an abundance of cheap labour to hoe and weed crops on vegetable farms but today there is a shortage of people willing to do this. Most fruit and vegetable farms have to rely on offshore labour to do these physical jobs. In field crops, the only way to control weeds in
crops is by mechanical cultivation resulting in more use of fossil fuels, pollution and soil compaction by the tractor and equipment.

Some people think growing organic is the answer. I have nothing against growing organic but it is on a smaller scale and more labour intensive. Those people who prefer organic should expect to pay more for their food because of the extra work of growing it.

Since 1950, pesticides have played a major role in doubling the world’s food supply without increasing the acreage farmed, leaving more land for natural resources and wildlife habitat. In this area you can see the amount of this best in the country – land that is being used for the building of houses. So we do not want to do something that will diminish the amount of food we can grow on our remaining land. We are now importing much food from countries that do not have the strict controls that we have now.

Ontario’s farmers are highly committed to using pesticides safely and responsibly. Before a pesticide can be sold in Canada, it must be registered under the Pest Control Products Act. Regulation 914 makes it mandatory for farmers to be certified to use certain pesticides on their property. A certified grower must ensure that pesticides are purchased, used, stored, transported, and disposed of according to the Pesticide Act. To qualify for certification, a farmer must complete the Grower Pesticide Safety Course and pass a qualifying examination.

Pesticides must undergo rigorous testing before they are registered. The manufacturer is required to submit scientific data on chemistry, toxicology, metabolism, residues, environmental impact and effectiveness of the product. The Pest Management Regulatory Agency of Health Canada is responsible for administering the Pest Control Products Act and its regulation. They must be sure
that the product does not pose an unacceptable risk to plants, animals, or public health. The Health Evaluation Division of the Agency is responsible for assessing how toxic the pesticides are for people who are exposed to them. Bringing one new product to market from the initial research through the complete registration process takes about 10 years.

Surveys conducted by the Ontario Ministry of Agriculture Food and Rural Affairs show that agricultural pesticide use in Ontario has been reduced by more than 40% since 1983. We continue to adopt new technologies and management practices that will assist in reducing the need for chemical pesticides but the abundant, high quality, affordable food that Canadians rely on can only be produced if farmers have access to safe, effective options for controlling pest devastation in crops.
The Regulation of Pest Control Products in Canada

Safeguards to Protect the Public

Peter MacLeod
CropLife Canada
September 13, 2007

Outline
1. Introduction
2. Pesticide Regulation in Canada
3. Federal Responsibility
4. Provincial Responsibility
5. Municipality Responsibility
6. Conclusion

Introduction
CropLife Canada is a non-profit trade association representing the manufacturers, developers and distributors of plant science innovations — pest control products and Plant biotechnology — for use in agriculture, urban and public health settings.

Pesticide Regulation
Federal Responsibility under the Pest Control Products Act
• Controls the use of all pesticides in Canada
• Requires rigorous scientific evaluation of research data on any potential adverse outcome related to Human Health and the Environment

Health Canada
Pest Management Regulatory Agency
• 500 professionals dedicated only to Pesticides
• PCPA the most modern state of the art regulation globally
• Pesticides must pass the test of no unacceptable risk

PCPA
• Requires some 160 separate tests including:
  - Cancer, endocrine disruption, developmental, neurological, reproductive and many others
  - Additional safety margins to children
  - Environmental Species
    • Fish, Birds, Insects, Earthworms, Bees, Microorganisms,
  - Environmental Fate in Water and Soil
PCPA
- Re-evaluation at least every 15 years
- Precautionary Principle included
- Transparency
  - Registry, input into decisions, sales data, confidential test data
- Segregates all pesticides into restricted/commercial/domestic class products based on risk

Provincial/Municipal
- Provincial Ministry of Environment
  - Regulates - sale, use, storage, disposal, training, certification, licensing, use restrictions
- Municipalities
  - Have the right to further regulate pesticides
  - But does it make sense?

For Hamilton's Consideration
- Municipal Pesticide By-laws
  - Duplicate federal and provincial activity
  - Safety assessments/restrictions already in place
  - Resource intensive - expensive/best use of funds?