

# PRINCE EDWARD ISLAND LEGISLATIVE ASSEMBLY



Speaker: Hon. Kathleen M. Casey

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## Standing Committee on Agriculture, Forestry and Environment

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DATE OF HEARING: 7 FEBRUARY 2008

MEETING STATUS: PUBLIC

LOCATION: POPE ROOM, COLES BUILDING, CHARLOTTETOWN

SUBJECT: MOTION #13 - COSMETIC LAWN PESTICIDES

**COMMITTEE:**

Alan McIsaac, MLA Vernon River-Stratford (Chair)  
Jim Bagnall, MLA Montague-Kilmuir  
Paul Biggar, MLA Tyne Valley-Linkletter, replaces Valerie Docherty, Minister of Tourism  
Olive Crane, MLA Morell-Mermaid, Leader of the Opposition  
Bush Dumville, MLA West Royalty-Springvale replaces Robert Henderson, MLA O'Leary-Inverness  
Cynthia Dunsford, MLA Stratford-Kinlock  
Charles McGeoghegan, MLA Belfast-Murray River  
Pat Murphy, MLA Albeton-Roseville, replaces Carolyn Bertram, Minister of Communities, Cultural Affairs and Labour  
Robert Vessey, MLA York-Oyster Bed  
Buck Watts, MLA Tracadie-Hillsborough Park

**COMMITTEE MEMBERS ABSENT:**

Carolyn Bertram, Minister of Communities, Cultural Affairs and Labour  
Valerie Docherty, Minister of Tourism  
Robert Henderson, MLA O'Leary-Inverness

**GUESTS:**

Canadian Consumer Speciality Products Association (Shannon Coombs, Chera Jelley)

**STAFF:**

Marian Johnston, Clerk Assistant and Clerk of Committees  
Ryan Conway, Research Officer

The Committee met at 1:35 p.m.

**Chair (McIsaac):** Welcome to the Standing Committee of Agriculture, Forestry and Environment. This afternoon we're dealing again with the issue of cosmetic pesticides.

If anyone has a cell phone or BlackBerry I'd appreciate it if you would turn it down at least to vibrate.

Again, I'm just going to remind you what we're dealing with in Motion 13 here. Basically from the resolution it says: to fully review the implementation and potential impacts of a province-wide ban on the use of cosmetic lawn pesticides.

We have one presenter this afternoon, or one presentation, and then Ryan has done some background work that we will be looking at. Then at that point, after his report's given, we'll be moving in camera to discuss that. Okay?

So without any further adieu I'd like to call our presenters for this afternoon. I'd ask, Shannon, if you would introduce yourself and Chera for the sake of Hansard, and then I'll ask you to go right into your presentation. Hopefully you'll leave us some time for questions at the end.

**Shannon Coombs:** Okay, great.

**Chair:** Okay.

**Shannon Coombs:** Thank you very much. I'd like to thank the committee, the hon. members, for allowing CCSPA to appear today.

My name is Shannon Coombs. I'm the president of the association, and with me is Chera Jelley who is the director of policy with CCSPA. So we're very pleased to be here, as I said. Chera and I have a great affinity to PEI. She's an Islander and I was

actually married on the Island in 2000. So we really like it here on PEI.

Just to give you a bit of background of CCSPA. We're a national trade association representing 47 member companies across Canada who manufacture, process, package, and distribute consumer, institutional and industrial chemicals such as soaps, detergents, disinfectants, pest control products, aerosols and deodorizers, and automotive chemicals. We're very diverse and all of our ingredients are very regulated.

So I'd like to start off today just by having an article by Dr. Schwarcz, which is in your package, because I think it's appropriate to share with the committee today. In Dr. Schwarcz's article he talks about a chemical that's used in food, cosmetic, and pharmaceutical ingredients which can't be removed from fruits and vegetables by washing, is used as a fire retardant, a stain remover, and an antifreeze ingredient. It's always found in malignant tumours and is responsible for thousands of deaths every year through inhalation. So while some people think that this substance should be banned, one quickly realizes that banning dihydrogen monoxide would not improve your quality of life because it is water.

So this demonstrates how easy it is to scare up scary scenarios by using scientific language to confuse an issue and a debate. Often people use selective language to make their case and do so in an inappropriate fashion. Therefore it is not in the public interest to misrepresent science when science is the fundamental basis for our decision making.

So just a basic question: Why are the products important? In our opinion, they're very important. Canadians own homes. They want to maintain a healthy lawn. It's important to them. Gardening is the fastest growing hobby in our country. A healthy green space cools the environment, cleans

our atmosphere, and provides oxygen. A healthy green lawn also provides several benefits. It reduces erosion, exposure to allergenic weeds, it's instrumental in controlling noxious weeds such as poison ivy and poison oak, it helps protect the green space and trees from insects and disease, and also increases your property value.

Urban settings also benefit from the products as we have clean, chlorinated pools, we have safe playgrounds, we control disease-carrying insects, also control biting and stinging insects, as well as bedbugs, which can be a problem in homes and hotels, and have been in Charlottetown, for example.

People also use their gardens to grow food. The pest control products that you use in your garden and on your lawn are the same active ingredients.

As well, a healthy green space is also important for those who enjoy outdoor sports activities, such as soccer, which is very popular on PEI, I understand.

There has been a statement made by some elected officials that only half of the population is protected, and that's completely false. All Canadians are protected. All Canadians are protected by a rigorous science-based federal regulation that controls pest control products. Canada has a world class regulatory regime within Health Canada, and in 2006 the act was revised and came into force with numerous new regulations that offer a great deal of transparency and increased scientific rigour with respect to the products.

Before any pest control product can be sold in Canada the product has to undergo a rigorous and thorough assessment following scientific protocols and prescribed tests and criteria by Health Canada. A new product is approved after about 160 different tests and studies have been completed and reviewed.

The PMRA, Health Canada, performs human health evaluations to ensure that Canadians will be protected from risks, such as cancer. Modern risk assessments are incorporated and vulnerable populations, such as children and pregnant women, are taken into account.

Under the new *Pest Control Products Act* the chemical and all of its exposures is taken into account during the risk assessment and safety factors are added to ensure the protection of Canadians and their environment. In addition, PEI has provincial legislation which classifies the pest control products for behind the counter sale, and this ensures that consumers are being educated and informed about the safe use of these valuable products.

It's also important to note Health Canada has initiated a stream for registering low risk products. We want to make that those are regulated so that they don't pose an unacceptable risk to Canadians. Because a lot of people believe that because you're natural or low risk that there is no risk and it's simply not correct. Our industry is committed to providing Canadians a choice about the different products that they use, but if a product claims to kill a pest it has to meet the registration requirements of the acts. It has to prove that it's safe and you have to prove its efficacious.

For example, I imagine many people would be surprised that vinegar is a registered weed killer in Canada. As well, the vinegar is recommended by a lot of people to use as something to clean your home with. The downfall of that is that there's no guarantee of what the efficacy level is with using a food grade vinegar. So if you go to the store and buy the vinegar you use to (Indistinct) your French fries and clean your counter top, there's no guarantee that the product has the effectivity to kill the germs that you may think it's killing. As well, Health Canada has recognized vinegar as a

potential exposure to humans and it was being reviewed under the Chemicals Management Plan that was announced by Prime Minister Harper in December of 2006.

So we're also very concerned about home brews as a result of any kind of action that might be taken. People have a tendency to think, of course, because it's natural, it's safe. They may mix ingredients that they don't understand the chemistry about and it may cause injury or death to consumers inadvertently. A very good example is there's a lot of recipes on the website these days for an insecticide - cooking rhubarb leaves and using that as a potential insecticide in your home. Rhubarb juice, which is oxalic acid, is extremely toxic, and if it's ingested you vomit and you die. We don't support the home brew activity, the promotion of those brews on the web sites, and information, as an alternative to using safe, registered pest control products.

Another issue of concern for CCSPA has been the definition around cosmetic. The federal legislation has a very broad definition of pest control product and that means it will cover everything from dog collars to personal insect repellents that you use to protect yourself from the West Nile virus to agricultural products. It's a very broad definition.

For example, the banned substances. Oh I'm sorry, hang on here. For example, it appears that one of the banned substances that we're talking about as being applied to lawns is 2,4-D. The challenge with restricting 2,4-D is that 2,4-D has a lot of uses on the label, and if you restrict it for lawns you're also going to restrict it for poison ivy and poison oak. I know that's been an issue here at committee of talking about we don't want to limit the protection of consumers from those uses.

As well, I'd like to talk a little bit about

some of the facts that have been tabled here at the committee, and I believe it's important to point out some facts about some previous testimony. There was some witness who testified that 2,4-D is banned in Europe, and that's incorrect. It's never been banned in Europe and, in fact, the European Commission has just reviewed 2,4-D and it's found that there are no new concerns.

As well, there's been a lot of references made to Quebec and a pesticide ban. They didn't define cosmetic. They have prohibited certain active ingredients for lawns, but they know that there is no science to justify that position and they have agreed that they would review those uses once the PMRA Health Canada has finished those re-evaluations. MCPA and 2,4-D and Mecoprop have all been re-approved for use, for continued use in Canada.

As well, most concerning has been the report from the Ontario College of Family Physicians. In our brief you'll see on pages 2 and 3 we have several respected offices such as Health Canada, the UK Royal Commission on Environmental Pollution, and Cantox, for example, all rejected the conclusions drawn by the college. They used selective science, and within the studies they used selective studies, and they were all primarily focused on agriculture.

So the challenge before you today is: What is the risk? What are you trying to achieve by having a provincial-wide ban? It's very difficult because all those active ingredients are used not only on lawns, but also on agriculture and on golf courses. I think it's very difficult for you to say that one use is safe and another is not. I think that it's a very slippery slope because agriculture is your primary industry and it will be a target, there's no doubt. If the College of Family Physicians is your basis for moving forward, that study has been focused primarily on agriculture and has been rejected.

So have municipal bans produced better health results? We believe that there has been no data, to date, that has proven that there's any measurable health or environmental resolve. What it has done is that it has driven homeowners to purchase product in other jurisdictions and other municipalities. It's forced homeowners to spend money to hire when they don't have to, they can use a safe product. It's forced safe products to be stigmatized. It's created a home culture of home brews and providing misinformation and putting Canadians at risk of injury or death. And it's created this myth that natural is safe, and it's simply not accurate. All substances, natural or manmade, will cause a health effect of some sort if the dose is high enough.

So I realize the committee is wondering about the potential impacts of the ban and I think that you, of course, are the best to answer that. But I think you need to think about where you're going to be in a few years with the cosmetic ban spreading to a ban impacting agriculture and golf courses. As a province that's known internationally for its not only food, the quality of food, but having the nicest golf courses in Canada, that you need to think about what those implications are on the Island. I know you're trying to stay focused on just the cosmetic ban, but with all due respect, I don't think you can. The issues between agriculture and cosmetic are interlinked and the debate's just not going to end here.

So again, it's not in the public interest to misrepresent the science when the science is a fundamental basis for decision making. So we would recommend that the committee look at maintaining a science based approach to public policy on the Island, that no distinction be made between agriculture and urban uses. Both of them contain the same active ingredients and therefore, if it's safe on your food, it's safe on your lawns.

We support the continued classification

system that's in PEI which promotes education to consumers about the safe use and disposal of those products. And we support integrated pest management and about using the right product at the right time.

I thank you for your time and more than happy to answer any questions.

**Chair:** Thank you very much for the presentation.

Questions? Starting here, Cynthia.

**Ms. Dunsford:** Thank you.

I would agree that I would support a science based look at this whole thing if I believed - and if science showed - with the PMRA especially, that they had rigorously tested ingredients behaving together and mixed chemicals, which includes inerts. To date we don't see that from the PMRA. We only see specific science based on certain chemicals without mix, and we all know that these pesticides are used concurrently with one and other. So the science thing, for me, I do have questions around that.

The other point is - and I do have a question eventually - is that if we think about, say in 1946 when this ad here for DDT was produced, where it says: DDT is good for me. This was back in the day when science showed that DDT was okay. Only just a few years ago science wasn't quite conclusive on tobacco. We went ahead, PEI went ahead, and made rules and regulations in legislation around tobacco use and the sale of, etc.

So I'm kind of leaning, obviously, toward the precautionary side of things. When we know that companies, with their vested interest in the sale of these products, have done lots of scientific data to support what would seem like a continuing sale of the product, it's a little harder to swallow.

So I guess my question would be when we talk about a healthy green lawn, as you did in the beginning, and in the same sentence or in the same paragraph you use that it increases the property value of a home, I just want to know how that means green and healthy.

**Shannon Coombs:** It's just one of the benefits of having a healthy lawn, green space. The products are safe when they're used according to the label. PMRA does a very rigorous assessment and the end use product and the inner agreements are assessed together. The end use product is looked at by PMRA.

**Ms. Dunsford:** When we had the PMRA here the other day, he agreed that those inerts and those mixed chemicals weren't necessarily part of the stringent testing that the scientists with the PMRA do. He cited examples of individual chemicals and their dangers, and we talked about the trade secrets and not knowing what those were, and that's kind of where that all fell in.

I guess not knowing where healthy and green and property value fits in, I'm a little - I'm missing something there. When you use the words 'healthy green lawn,' and one of the benefits of a healthy green lawn is to increase the property value of your property, I'm not sure of the relationship there and how means it's healthy.

**Shannon Coombs:** We've listed just what we thought was an inclusive list of the benefits of having a healthy green space.

**Ms. Dunsford:** In Charlottetown, for instance, the City of Charlottetown does not use pesticides on their public properties. So in that case it's not about property value, it's just about having safer places for children to play. The city themselves has made that a policy within their jurisdiction.

**Chair:** I have a question for you. If you're

going in to buy some pesticide or whatever at one of the stores, say you're doing it in the summer, anyone who sells that, are they licensed to do that, even if it's summer staff? Do you know what their qualifications have to be in order to -

**Shannon Coombs:** At the retail level here in PEI?

**Chair:** Yes, retail level.

**Shannon Coombs:** It's my understanding that if you go to buy the product and you're talking to someone at the counter, it's my understanding that, yes, they have to have some level of training, retail training, so that they give you the right information.

**Chair:** Okay. They are properly trained, then, is one of the questions I also wanted (Indistinct).

**Leader of the Opposition:** Well, that's part of -

**Chair:** Summer staff or whatever.

**Leader of the Opposition:** (Indistinct). It's short. Can I have a question?

**Chair:** Yes, go right ahead, Olive.

**Leader of the Opposition:** You refer to Quebec and you made a couple of comments that if you're looking at cosmetic pesticides, how do you see the relationship to agriculture pesticides? Because you've mentioned that a couple of times.

I guess my question would be in the places where there has been bans, whether it's Hudson, Quebec or some of the other communities, what has happened in relationship to agriculture pesticides in those communities? Like the Hudson community, it's 12 years since they implemented the ban. So has that led to discussion on then looking at agriculture pesticides?

**Shannon Coombs:** I don't live in Quebec. But I'm just giving you my observations, if I may.

**Leader of the Opposition:** Sure.

**Shannon Coombs:** At this time, because the debate has been around the herbicides issue, and that the debate was around the fact that there was no science to support it, that there hasn't been any further action taken by the provincial government.

**Leader of the Opposition:** In Quebec?

**Shannon Coombs:** In Quebec. And that there are in a position right now where they are waiting for PMRA to finalize their re-evaluations on those lawn and turf and reconsider their position with respect to those active ingredients being on the schedule.

**Chair:** Do we have any further questions?

Buck.

**Mr. Watts:** It was just more of a comment, I guess. I'm wrestling with this 2,4-D thing because there are so many conflicting reports that we've heard over the last number of weeks. You read somewhere 2,4-D is safe, then no, 2,4-D is -

**Shannon Coombs:** I read some of the testimony. I agree there's been some -

**Mr. Watts:** 2,4-D is contained in, like, 1,500 pesticide products. So, I mean if 2,4-D is going to be banned then those products, or they have to be taken out. So you know, I guess I'm having a hard time to decide whether or not this 2,4-D, which is uppermost in my mind, is it safe or is it not safe?

**Shannon Coombs:** PMRA has released a

report, Proposed Acceptability for Continued Registration, and it says that it is safe when used according to the label and that there will be continued uses for agriculture, forestry and domestic uses as well.

The World Health Organization has said that there are no links with 2,4-D and any of the herbicides with respect to cancer, and I think that the evidence speaks for itself.

**Chair:** Okay. The last one left is Cynthia.

**Ms. Dunsford:** I'll just follow up on Buck's 2,4-D topic because there is confusion also around whether or not it's banned in Sweden. When the PMRA was here I asked them, just like I'm asking you right now, is 2,4-D banned anywhere in the world and they said no.

**Shannon Coombs:** It's not.

**Ms. Dunsford:** Then after the meeting Lorne Hepworth from CropLife came up to me - or no, not PMRA, sorry, it was CropLife - came up to me afterward and said: We made a mistake, it is banned in Sweden.

**Shannon Coombs:** It's not.

**Ms. Dunsford:** And then since then, gone to do some further research and found out that, indeed, it has been banned in Sweden.

So it's kind of like, okay, so the industry themselves, CropLife, is saying no but then correcting themselves saying yes. Go and do your own research and find out that it is and then other people say it's not.

So that's part of the problem too, is that we don't - we talk about fearmongering, but we also have to remember that there's some information that's perhaps being relayed that seems to me, to be quite frank, to be protecting an industry. When that takes

place - the industry's saying there's fearmongering going on with people who don't understand science, i.e., the Ontario College of Family Physicians, and yet then we have the industry saying that information that's being relayed is false. So I don't know. That's not maybe fearmongering but there could be finger pointing going on, or accusing people of not having the correct information when, in fact, they may have.

So we're not here necessarily to try and decipher all of those mis-truths and truths. What we're charged with here is coming up with recommendations, and yours to adhere by scientific data is heard. There is lots of science out there that supports banning pesticides for cosmetic use and we will be looking at that, I'm sure. So I think, just to kind of - this 2,4-D thing is just kind of -

**Shannon Coombs:** And I appreciate -

**Ms. Dunsford:** - you know, what are supposed to believe?

**Shannon Coombs:** - that there has been a lot of misinformation but I was hoping to come today to provide some facts. It's my understanding that it has been approved in the Eu and for use in the EU countries and is available in countries like Sweden, 2,4-D in particular. So if there's -

**Ms. Dunsford:** Again, when you do the research and you find out that it's not available in Sweden, then somebody doesn't have the correct information. So it's hard to know.

**Chair:** One quick one to Buck.

**Mr. Watts:** No, it's just some information I got off the web. It says: Concern over 2,4-D is such that it is currently not approved for use on lawns and gardens in Sweden, Denmark, Norway, Kuwait, and the Canadian province of Quebec.

So it doesn't say that it's banned. It says it's not approved for use. So, I mean, what's the difference between not approved for use and banned? And then maybe this is false information too, I don't know.

**Mr. Bagnall:** According to records that we've heard on that, it is that it was never banned there but it was voluntarily taken off the market in Sweden. It wasn't banned but it was voluntarily taken off the market.

**Shannon Coombs:** We can certainly try and find out that answer and send it to the committee, if that would be helpful.

**Chair:** Sure, that'd be great.

**Shannon Coombs:** Okay.

**Chair:** Anyway, we appreciate your presentation and thank you for coming forward.

**Shannon Coombs:** Thank you very much.

**Chair:** We are now going to move to Ryan Conway, our research officer, who will present his report which examines some of the research he's done on federal-provincial-municipal legislation. So we'll turn it over to Ryan.

Okay, we are now going to move to Ryan Conway, our research officer, who will present his report which examines some of the research he's done on federal-provincial-municipal legislation. We'll turn it over to Ryan. Are you going to do a presentation?

**Ryan Conway:** (Indistinct).

*[There was a short recess]*

**Chair:** Okay. I'm done talking, so we're going to start. Okay, I've turned it over to Ryan. He's done some - as you can see by the size of the booklet.

**Ryan Conway:** Okay, actually before I begin the report, I just might ask the committee if you would like me to repeat the correspondence I had from KemI, the Swedish chemical authority - which is their version of PMRA - on the topic of 2,4-D. This went out before. They responded to me.

**Chair:** Okay, agreed? Okay. Go ahead. It's agreed.

**Ryan Conway:** Okay, their response was that it has been withdrawn voluntarily since 1989, and that there are currently no products containing 2,4-D that are available in Sweden. Regarding the rest of Europe, that might be very well a different case, and I don't know about Denmark or Norway. I haven't looked into those. But that was my response from KemI on Sweden.

Okay, so I've given you the thick binders. They're in five parts. The first part is my report on legislation. The second would be another group's very large report on public education efforts, and that will be the focus of the second part of my presentation. Thirdly, we've got the program overview of Halifax's 2006 efforts around their by-law. The fourth bit is a quick reference on community-based social marketing which is something I'll get to in the end. Then lastly, web site links and fact sheets relating to pesticide education.

I'm clearly not going to read every bit of this today - you can do that on your own time - but I will refer to my written notes fairly extensively for highlighting.

So, starting with my own report.

The goal of this report is to examine the federal, provincial, and municipal legislation on pesticides. The report touches on PEI's situation, possible implications of municipal and provincial pesticide bans, and previous legal challenges to pesticide bans. While the term "cosmetic pesticides" is commonly

used, it must be noted that there is no generally-accepted group of chemicals labelled under that term. Some pieces of legislation group pesticides under banned or permitted lists, but these vary. Instead, "cosmetic" refers to the way in which pesticides are used, and perhaps because the definition of "cosmetic" is open to interpretation, the term is rarely used in actual legislation.

Federal legislation. We've already talked to the PMRA so I won't go into this in too great detail. In Canada, pesticides are legislated by the *Pest Control Products Act*, the main aim of which is "to prevent unacceptable risks to people and the environment from the use of pest control products." The bulk of the act is devoted to the registration of pest control products, and the main prohibitions relate to unregistered products. Registration and testing is done through the PMRA which keeps a publicly available database of all registered pesticides.

Beyond prohibiting unregistered products, the act does include a general provision on safety which follows: "No person shall manufacture, possess, handle, store, transport, distribute, use or dispose of a pest control product in a way that endangers human health or safety of the environment." However, it generally does not further specify where pesticides can be used or in what manner, beyond the requirement that actual use must conform to the use for which each product is registered.

I'll point out that in the fall there was a bill introduced in the federal parliament, Bill C-302, which is entitled *An Act to Amend the Pest Control Products Act*. It was introduced by NDP MP Denise Savoie on October 16<sup>th</sup> last year. The summary is as follows:

"The purpose of this enactment is to place a moratorium on the cosmetic use of chemical

pesticides in the home and garden, on recreational facilities such as parks and golf courses, and near water, until scientific evidence showing that such use is safe has been presented to Parliament and concurred in by a parliamentary committee.”

So far this bill only received one reading. A similar bill was introduced twice before, in 2005 and 2006, but again never made it beyond the first reading.

Quebec. Quebec’s Pesticides Management Code contains the following clause which applies to the application of pesticides on lawns:

1. Land application;

5. Ornamental horticulture and extermination;

68. A person who applies pesticides as described in a Subclass C4, C5, D4 or D5 permit may not apply pesticides containing an active ingredient listed in Schedule 1 on a lawn other than a golf course lawn.

If you want to see Schedule 1, it’s on page - if I can get it here - page 15 of the report.

**Leader of the Opposition:** Section 1 of the report?

**Ryan Conway:** Yes, section 1, sorry.

It contains things like Carbaryl, Dicofol, Malathion, Benomyl, Captan, Chlorothalonil. I have no idea if I’m pronouncing these right. It does cover four types of 2,4-D, whether it’s present as sodium salt, ester, acid, or amine salt. It also covers MCPA in various forms and Mecorprop in various forms. Note that this clause bans pesticide use through location - lawns - rather than by defining the cosmetic use.

The code also contains the following

sections on the sale of pesticides.

Chapter III, Sale:

25. It is prohibited to sell or offer for sale Class 4 or Class 5 pesticides that contain an active ingredient listed in Schedule 1 and that are intended to be applied on lawns.

26. It is forbidden to sell Class 4 pesticides that have been mixed or impregnated with fertilizer. It is also prohibited to sell or offer for sale Class 4 or Class 5 pesticides in a wrapping containing more than one pesticide container, except if the label mentions that there are several containers.

27. The holder of a Class A or B which is a wholesale or a retail pesticide sales permit must place the pesticide offered for sale in such manner that the customers cannot help themselves, except in the case of Class 4 pesticides used as wood preservatives or antifouling paint.

With these clauses, the Pest Management Code limits the application, sale and public access of many of the pesticides that might otherwise be used in residential situations. Golf courses are one public area where pesticides are less restricted, but the code also requires golf course owners and operators to submit a detailed pesticide reduction plan to the minister of the environment every three years.

All provinces have statutes and regulations legislating pesticide use, licencing, storage and so on. None currently have a clause similar to Quebec’s that specifically prohibits their use on lawns. However, the Premier of Ontario has indicated he will introduce legislation banning cosmetic pesticide use in the spring of 2008.

Currently, you can go to Ontario’s Environmental Registry, also called the *Environmental Bill of Rights*, and look at their proposed policy in the areas in which

they would like to receive public commentary. Things like the scope of the ban, the sale, and so on. This link, if you would like to go to it, should be in the References of Section 1 of the current report. This notice is open for public commentary until February 17<sup>th</sup>.

**Leader of the Opposition:** Did they do any public (Indistinct)?

**Ryan Conway:** Meetings like this?

**Leader of the Opposition:** Yes. They have, at the back of the room, they're saying yes?

**Shannon Coombs:** Yes, we had a meeting with them (Indistinct).

**Ryan Conway:** I haven't heard of any.

**Leader of the Opposition:** Okay.

**Ryan Conway:** But that doesn't mean they haven't done any.

**Leader of the Opposition:** Thank you.

**Ryan Conway:** Also, in British Columbia a private member's bill has been introduced, and it's called *Toxics Use Reduction Act*. That member's bill would ban pesticides for residential or cosmetic use, and was introduced for first reading on November 20<sup>th</sup>, 2007. I'm not sure if it's progressed any further beyond that in that legislature either.

California. California is commonly considered to be a leader in environmental protection in North America. In terms of pesticide legislation, the state's Food and Agricultural Code applies to registration, use, licencing, and agricultural applications, but does not restrict applications for residential or cosmetic purposes. According to the group Californians for Pesticide Reform, the cities of Arcata, Berkeley, Corte Madera, Fairfax, San Francisco, Santa

Barbara, Santa Cruz and Santa Monica, and the counties of Contra Costa, Marin, and Santa Clara have passed ordinances that require municipal integrated pest management programs, and in some cases banned pesticides on municipal property. However, none of these ordinances ban pesticide use on private property.

Municipal bylaws in Canada. As of December 31<sup>st</sup>, 2007, 137 Canadian municipalities have passed municipal bylaws on the use of pesticides on private property, and 14 other municipalities have bylaws at the draft stage. The full list of these municipalities is in Appendix B of this report. The largest municipality with a pesticide bylaw is Toronto, and seven provinces have at least one municipality with a bylaw in place. Alberta, PEI and Saskatchewan have none.

PEI's Pesticide Regulatory Program office, which is part of the Department of Environment, Energy and Forestry, has reviewed municipal pesticide bylaws and compiled some common features, which I'm just going to read off straight:

no reference to the term cosmetic pesticide; applicable to public, commercial and private properties;

do not restrict pesticide use on property owned by the federal or provincial governments;

bylaws generally prohibit most outdoor applications of a pesticide - none provide for a complete ban;

these bylaws do not address the sale of pesticides;

they identify pesticide uses that are exempt from the bylaw, such as swimming pools, wood preservatives, harmful or nuisance pests, and personal insect repellents;

they identify specific pesticides that are exempt from the bylaw, such as biological or low-risk products;

they allow for application of pesticides inside a structure, on agricultural property, on golf courses, and to control significant pest infestations, if these are documented in writing by a qualified individual.

For all of these permitted uses, there's various requirements on notification, signage, reporting, etc.

These bylaws also often establish pesticide-free buffer zones around property lines, bus stops, schools, parks, playgrounds, hospitals, senior care facilities, drinking water wells, and open bodies of water;

they establish maximum allowable wind speeds for pesticide application, especially to trees and shrubs;

they provide a financial penalty for violation which varies from 100 to \$2,000;

and are enforced solely by municipal staff.

Vendor Responsibilities. While most bylaws don't relate to the sale of pesticides, two municipalities have unique features that cross over into this area. In Sackville, New Brunswick, pesticide vendors must provide notification signs to any customer purchasing pesticides. Perth, Ontario requires that all pesticide vendors display a posted copy of the relevant bylaw for their customers to see. It seems in these cases, they are placing an onus on vendors to inform their customers.

Another unique measure is Brandon, Manitoba's Pesticide Notification Registry, which lists residents who have medically-documented hypersensitivity to pesticides and provides a no-application zone around the property of these residents.

Now all these municipal bylaws all fall under enabling legislation at the provincial level. For example, clause 172 of Nova Scotia's *Municipal Government Act* includes regulation of pesticide application, use and noticing as areas under which municipalities have the power to make bylaws, but it also has the caveat that "... a by-law may not prohibit the use of pesticides, herbicides and insecticides and a bylaw pursuant to this clause does not apply to property used for agricultural or forestry purposes."

However, further on in that same act, under the Halifax Regional Municipality section, it says that that clause 172 does not apply to the Halifax Regional Municipality. So with that in mind, in August 2000 the HRM passed bylaw P-800, Respecting the Regulation of Pesticides, Herbicides and Insecticides. It provided a phased-in approach which culminated in the broad clause 5 which said: "Commencing April 1, 2003, no person shall carry out or permit or suffer to be carried out a pesticide application within the Halifax Regional Municipality." After that date, only pesticides permitted through an administrative order of the Halifax Regional Council can be applied.

However, that bylaw is now coming back under public scrutiny, as is the enabling statute, the provincial act. MLA Charlie Parker recently introduced a private member's bill that would amend the *Municipal Government Act* to extend the authority to pass bylaws prohibiting the cosmetic use of pesticides to all Nova Scotian municipalities. Mr. Parker said that it is only fair for all municipalities to have the option to pass bans, and that he believes some communities want the authority while others may not.

Now, PEI. At least four pieces of provincial legislation could have a bearing on the question of whether municipalities have the power to pass bylaws banning cosmetic

pesticides: the *Municipalities Act*, *Charlottetown Area Municipalities Act*, *City of Summerside Act*, and the *Planning Act*. Municipally-empowering legislation in other provinces is often permissive, allowing municipalities to pass bylaws under general provisions of health and welfare. I'm going to talk a bit more about that type of provision later on when we talk about the legal side of this.

PEI's *Municipalities Act*, however, is more prescriptive, outlining specifically what bylaws and services municipalities can enact. The acts governing the cities of Charlottetown and Summerside are similarly prescriptive. The *Planning Act* appears to grant the power to prohibit activities, but whether cosmetic pesticide use falls under this scope is not immediately clear. Any municipally-empowering amendments to the four acts above regarding pesticides may also require parallel amendments to the *Environmental Protection Act* and the *Pesticides Control Act*. The committee may wish to invite staff of Municipal Affairs, Provincial Planning, the Pesticide Regulatory Program and departmental solicitors to present on the intricacies of municipal regulation on pesticides.

But looking beyond that, there are 75 municipalities on the Island. Roughly 50 of these do not have development, planning or any other professional staff beyond an administrator, and some administrators are part-time or volunteer. Municipal councils may pass bylaws, but an issue such as banning cosmetic pesticides - where distinctions regarding agriculture and forestry applications, prohibited and exempted pesticides, general prohibitions and exempted scenarios, and the lack of an accepted definition of what constitutes a "cosmetic pesticide," all come into play. This is likely more than many councils are equipped to handle.

Beyond that as well, without professional

staff the bylaw of a municipality could be extremely difficult to monitor and enforce. Yet councils may face pressure from residents to do just that. Enforcement of pesticide bans, whether they are municipal, provincial, or both, is a particular challenge in that complaints must be investigated very promptly. Pesticide application can take only a matter of minutes, and in the time it takes an enforcement officer to arrive at the site of an alleged violation there may be insufficient evidence remaining to press a charge.

Now, not all of PEI, as we know, is covered by a municipality. We've got 135,000 residents, but 32% of those don't live in a municipality, and of our square kilometres, 71% is not even part of a municipality as well.

So the complexity of pesticide bylaws, the capacity to pass, monitor and enforce such bylaws, and PEI's significant non-municipal population and territory, all point toward the likelihood of inconsistency should municipalities be left with the sole responsibility to decide how, when, where, why and by whom pesticides may be used.

Now, legal challenges. You've all heard about the case in Hudson. That started back in 1991 when Hudson was the first municipality in Canada to pass a pesticide-restricting bylaw which they call bylaw 270. In 1992, the municipality charged Spraytech, a landscaping and lawn care company, with violating that bylaw. Spraytech first challenged the bylaw in the Quebec Supreme Court and then the Quebec Court of Appeal, and was unsuccessful both times. In 2001, Spraytech brought the matter before the Supreme Court of Canada, arguing that the town did not have the authority to enact the bylaw and that the bylaw should be nullified due to conflict with federal and provincial legislation.

So here's where the general welfare

provision comes into play. Hudson's bylaw was enacted under section 410 of Quebec's *Cities and Towns Act*, which stated that municipal councils may pass bylaws to "secure peace, order, good government, health and general welfare in the territory of the municipality." The court categorized section 410 as a "general welfare provision," an open-ended provision in place to allow municipalities to deal with new and emerging issues without having to wait for amendments to provincially enabling legislation. This type of provision is common to various provincial municipally-enabling statutes, but not PEI's.

With evidence of the citizens of Hudson's desire for pesticide restriction, which largely came in the form of petitions, the court found that the purpose of bylaw 270 did apply to general welfare and therefore fell within the intention of section 410 of the enabling statute.

Spraytech also argued that since they made use of pesticides allowed by the federal *Pest Control Products Act* and *Pest Control Products Regulations* and bylaw 270 prohibited them from using these pesticides, the bylaw and federal legislation were in conflict. The court clarified that the federal act determines which pesticides can be made and/or used in Canada and is a permissive, rather than exhaustive, statute. It was not impossible to obey both the federal rules on which pesticides can be used in Canada and bylaw 270, on whether pesticides can be applied in the town of Hudson.

Provincially, the *Pesticides Act* regulates, in Quebec, pesticide permits for vendors and commercial applicators, and again, it was not impossible to obey both the provincial rules on permits and Hudson's bylaw on whether pesticides can be applied within its boundaries. To sort out the matter of conflicting legislation, the court quoted a previous decision that said, "A true and outright conflict can only be said to arise

when one enactment compels and the other forbids." The Supreme Court dismissed the appeal and Hudson's bylaw stood.

That case in the Supreme Court is considered to be the catalyst for many other municipalities' bans on cosmetic pesticide use. Prior to the decision, many municipalities were hesitant to enact bylaws in this area as they were fearful of facing costly litigation from the pesticide industry, and unsure whether pesticide bylaws would stand up in court. When the Supreme Court upheld Hudson's bylaw, a precedent was set for the entire country, and more municipal councils moved on bylaws banning the cosmetic use of pesticides.

The litigation threat in Quebec. In 2002, the Government of Quebec announced its intention to introduce legislation banning the cosmetic use of pesticides. This was met with a threat of a lawsuit under chapter 11 of the North American Free Trade Agreement from the lobby group Industry Task Force II on 2,4-D. Despite the threat, no lawsuit was filed by the Industry Task Force II on 2,4-D, nor has any other challenge to the Pesticide Management Code been filed.

The challenge of sale bans. A municipal ban on the use of pesticides might be assumed to include a ban on selling them to the general public. This is largely not the case. A recent episode of CBC's *Marketplace* found that many of the pesticides not permitted for use within the Halifax Regional Municipality can nonetheless be purchased at stores within the HRM. The effectiveness of a ban is called into question when access to the banned substances remains.

However, the lack of a legal precedent establishing the power to ban the sale of pesticides and the resulting fear of costly litigation from the chemical industry may point to why municipalities have not passed pesticide sale bans. Perhaps the closest municipalities have come in this regard is

the vendor notification and bylaw posting requirements in places such as Sackville, New Brunswick and Perth, Ontario.

So, to sum up this section of the presentation, while each province has legislation in place to deal with pesticides, and the federal *Pest Control Products Act* applies to all provinces, currently only Quebec has a law that bans the cosmetic use of pesticides. However, over 130 Canadian municipalities have some form of restriction in place. These bylaws generally prohibit outdoor applications of pesticides on municipal, commercial and private property, though they may also have exemptions for severe infestations, agriculture and golf courses. They do not generally restrict the sale of pesticides.

Municipal bylaws can only be enacted under enabling provincial legislation, which in PEI tends to be more prescriptive than permissive. If decisions on whether to ban pesticides are left solely in the hands of PEI's municipalities, inconsistencies will likely result as many municipalities might struggle with enforcement and a significant portion of the Island is non-municipal territory.

However, based on a Superior Court decision in 2001, municipalities do have the right to pass pesticide-banning bylaws under provincial enabling legislation. The lone provincial ban passed despite the threat of legal action, and is also notable in that it prohibits both the use and sale of cosmetic pesticides. Other provinces have recently introduced bills or intentions to ban the cosmetic use of pesticides within their borders.

**Chair:** I have a question for you. When you were reading that, you said there just in the conclusion part: over 130 Canadian municipalities have restrictions in place, but it reads here: bans.

**Ryan Conway:** Yes. Actually, restriction is a better term. Because it's true, as far as I've found, that no municipality bans them across the board. There's often exemptions, approved product lists, things like that.

**Chair:** Okay. Any other questions on that section?

Nope? Okay.

**Ryan Conway:** All right.

In the next section I'm going to talk about education programs that are focused on pesticide reduction. When I was given this research task I started out looking at Halifax and Quebec and other places and started writing up a report. Then I managed to come across this nice thick study that is section 2 of your binder.

The study is entitled: The Impact of By-Laws and Public Education Programs on Reducing the Cosmetic/Non-Essential, Residential Use of Pesticides: A Best Practices Review. It's been put together by the Canadian Centre for Pollution Prevention and Cullbridge Marketing and Communications, and it comes from 2004.

I have contacted the Canadian Centre on whether there is an update to this and they said that they hadn't received further funding to update it. So the things I'm talking about here are up to date as of 2004.

Now, there's various sections in this report and I'm going to just go through it roughly, but there's plenty of good information on the end about various communities that they studied and those community efforts and so on. It's really quite thorough.

So the purpose of the study was to conduct a best practices review of the impact of bylaws and public education programs on reducing cosmetic, non-essential, residential use of pesticides. The study focused on the

impact of outreach programs and bylaws for reducing cosmetic residential pesticide use. It does not relate to pesticide application in agriculture, forestry, and other commercial uses.

The study assessed the relative effectiveness of approaches observed in North America and Europe, for decreasing the cosmetic use of pesticides on residential properties through education and bylaws and legislation.

The Methodology. The effectiveness of each approach was evaluated, where information was available, based on: the proportion and number of citizens reached, the proportion and amount of residential pesticides reduced, and the proportion and amount of low-impact alternatives to pesticides that were used instead.

The researchers first generated a long list of 62 potentially promising communities to represent best practices based on criteria of relevance: that is, pesticide reduction through regulatory and/or voluntary means; and replication, that is regulatory and voluntary means that could be duplicated by other communities.

A short list of nine best practice communities was developed based on reliability of findings, including whether measurements were taken both before and after the intervention, whether the results were self-reported or observed in a manner less prone to reporting bias, and whether random sampling was used. They developed a research template and then conducted an analysis across the nine best practice communities in order to identify promising models that are most effective, key success factors, lessons learned, and common building elements.

The nine communities were jointly: Hudson, Saint-Lazare, Notre-Dame-de-l'Île-Perrot, Quebec; the Halifax Regional Municipality;

Hamilton, Ontario; jointly North Vancouver and the districts of North and West Vancouver, BC; Chesapeake Bay, Pennsylvania; Seattle and King County, Washington; North Central Texas; Frejlev in the municipality of Aalborg, Denmark; and the state of Baden-Württemberg, Germany.

They categorized the amount of reduction achieved in these and all the communities, according to this. This is done according to qualitative, quantitative, and anecdotal information and feedback. High reduction means 51 to 90% reduction in pesticide use. Medium is 25 to 50%. Low is 10 to 24. Marginal is less than 10% reduction.

Some figures on Hudson, the cost of their bylaw, their success, their population. Hudson, as I said, was the first Canadian municipality to enact a ban and Saint-Lazare and Notre-Dame-de-l'Île-Perrot passed their own bylaws shortly afterward. Sorry, I keep saying ban, but I should be saying bylaw.

Pride in being pesticide-free. All three communities shone at building pride in being pesticide-free municipalities. For example, a pesticide-free campaign logo was used on all city paperwork for a number of years in Notre Dame and Saint-Lazare. Industry players such as lawn care companies and garden centres were involved as partners.

These communities used a variety of techniques to help residents comply with their bylaws, including the use of home patrols for answering questions and providing advice on alternatives to pesticides. They put an emphasis on sustainable horticulture by providing training and support. Warning letters were sent to people who disobeyed the bylaw, backed up by the threat of escalating fines for offenders. Other outreach approaches included a phone information green line, gardening talks and hands-on workshops,

articles, pamphlets, pesticide-free lawn signs, and a leave-behind information package.

Provincially, one aim of Quebec's *Pesticides Act* is to devise, foster, and ensure the implementation of plans and programs to train specialists, educate, and inform the public and promote awareness in the field of pesticides. Now, I should point out that Quebec's provincial efforts were not part of the study that I'm referring to here, but I thought it'd be worthwhile to point them out since it is the one provincial ban.

Their Ministry of Sustainable Development, Environment and Parks administers vendor and user training programs that are not mandatory, but can help with certification qualification exams. The ministry also contributes to good practices guide books for commercial pesticide users in various sectors, though I can only find French versions of these through their ministry website.

The ministry has also hosted information sessions for various organizations and associations, published notices targeting groups that have new obligations under the regulations, and in the summers of 2005 to 2007 conducted inspection blitzes targeted at retailers, horticulturalists, golf courses, and day cares. For the general public, the ministry has the online publication *Gardening All Naturally* which encourages the population at large to be more tolerant when faced with undesirable plants or insects and to use pesticides only as a last resort means. This column offers alternatives to pesticides to deal with trees, shrubs, flower beds, or gardens affected by pests and is also devoted to controlling the unwanted organisms most commonly encountered in residential lawns.

In 2001 the Quebec government launched the Pesticide Free Naturally public awareness campaign in partnership with the

Coalition for Alternatives to Pesticides, or CAP. This campaign consisted of an information kit that included fact sheets on health impacts, information on effective alternatives to pesticides, home recipes, a horticultural calendar, a 12-step guide to organic lawn care, a children's activity pack, tips on how to engage neighbors in discussions about pesticide use, a mock conversation on lawn care between God and St. Francis entitled *What God must be thinking* - which is in section 5 here and it's kind of entertaining - and the pesticide-free lawn sign.

I could only find a few of these fact sheets online in English, and the CAP website seems to be current only to 2006. It's unclear whether the Quebec government is still distributing these information kits.

**Leader of the Opposition:** Ryan, up until that point, too, there's nothing that suggests that there was an increase in people wanting pesticides in agriculture banned because of what Quebec had done with Hudson and other places with cosmetics. Is there anything in your research that you found contrary to that?

**Ryan Conway:** Now I haven't looked for that specifically, but I've never come across anything that said people who first put restrictions on cosmetic use of pesticides then later wanted restrictions on agriculture.

**Leader of the Opposition:** Can you try and do a scan of that? Because the last presenters -

**Ryan Conway:** Sure.

**Leader of the Opposition:** - made that comment that there's a correlation, and the lady that was here last week from Quebec that presented in that 15 minutes, when I asked her, in her experience, it never had -

**Ryan Conway:** Right.

**Leader of the Opposition:** - but it'd be nice to know.

**Ryan Conway:** Sure, I can look into that.

Now, Halifax. The Canadian Centre for Pollution, the best practices report, has information on Halifax's efforts, but also section 3 is the 2006 Program Overview for the Halifax Regional Municipality's efforts around pesticide bylaw P-800. So it's also a fairly thorough report, so I'll be using some information from that as well.

Here again are some figures on the HRM's budget for this bylaw and efforts around it, its population and so on. The HRM's Sustainable Environment Management Office publishes yearly program overviews of its activities and that's who published the 2006 review.

Major components of the 2006 publication and awareness initiatives include: reprinting of the fax sheet series which has seven different fact sheets; articles in two editions of the Naturally Green newsletter that is delivered to all households in HRM; spring, summer and fall t.v. commercials on Naturally Green; focused information mail-out to all 2005 pesticide permit recipients on sustainable alternatives to pesticides; several newspaper articles and stories; Naturally Green and Sustainable Practices web site; Ecology Action Centre Pesticide bylaw web site and brochure; the Compost Topsoil Use Guidelines with Landscape Nova Scotia; a retailers' workshop; and public displays at events like the Nova Scotia Home Builders Home Show and in Kent stores.

The HRM also has the Corporate Call Centre which acts as a first point of contact, providing names and instructions on accessing information and, if required, initiates a service request for more detailed pesticide-related inquiries. The call centre received 255 pesticide bylaw related phone

calls in 2006. Most were handled at the first point of contact.

Partnerships. Public awareness and educational efforts have included external partners such as the Canadian Wildlife Federation, Dalhousie University, Nova Scotia Agricultural College, Landscape Nova Scotia, Clean Nova Scotia, Ecology Action Centre, and garden centres and retailers in the region, and internal partners. For the past few years, these partnerships helped leverage other funding, training, and communications opportunities, providing excellent value for HRM taxpayers.

In the HRM they also use permit assessment as an educational opportunity. Under their bylaw, instances of insect infestation or danger posed by plants or insects may warrant the use of a pesticide on a property. That's one of the exemptions we've talked about. An on-site permit application approval-rejection system is used. A homeowner or landscaping company completes a permit application which is first reviewed at one of the HRM customer service centres. As long as the application is pertinent and complete, it is passed on to third-party inspectors who visit the site, often the next day, to determine whether a permit should be issued.

The Ecology Action Centre, and now in 2007, Clean Nova Scotia, a different organization, serves as the third-party inspector. The Ecology Action Centre is a non-profit organization that has been working on environmental issues for over 35 years. They have been contracted to provide permit inspection services. Inspections form an integral part of the education programs since they provide opportunities to discuss pest problems directly with the residents.

In 2006, education efforts during inspections focused on residents using liquid soap solutions as part of their approach to chinch bug problems and sustainable landscape

maintenance practices that could be implemented immediately and over the long term. The aim was to ensure that as many residents as possible had the information they needed and the opportunity to try, where applicable, soap solutions before pursuing a permit through the programs. Additionally, residents were given print materials on sustainable lawn maintenance, signage and notification requirements, and the health effects of pesticides.

As previously noted, despite the HRM's ban on cosmetic pesticide use several of these banned substances are still available in HRM stores. The HRM has lobbied the federal and provincial governments to change legislation so that these banned products can be more easily removed from store shelves. In the meantime, the Ecology Action Centre has tried to bring retailers on side to keep banned products out of circulation, and they've done various things in that regard: workshops for retailers and staff; they've been present in stores to encourage the public to be educated on pesticides, and so on. The full details are in the various reports.

Now the table I've got here comes from the 2006 overview in section 3 of Halifax's pesticide reduction efforts. The table shows enforcement and permit numbers from 2001 to 2006 which gives an idea of the HRM's success of their programs.

Also, in the report, it notes that of the 47 complaints in 2006, 37 related to suspected pesticide use and 10 to signage issues. There was sufficient evidence for charges to be laid in three cases; 85% of the complaints received a response within three business days; of the 1,542 permit applications in 2006, 98% were for chinch bug problems; approximately 98.5% of applications were submitted by companies on behalf of their clients.

So the enforcement and permit numbers

seem to point towards some reasonable conclusions. The general public is aware of Halifax's pesticide bylaw and complied with it. This is shown by far fewer enforcement complaints over the years. The general public and lawn care companies over time are less likely to turn to a pesticide permit as a first means of dealing with a pest problem. There are far fewer permit applications. However, there remains a portion of the public and/or the local lawn care industry that try to cling to inappropriate pesticide use in the face of other methods and this is shown by the number of rejected applications rising annually.

Now, the other nine best practices communities all used different techniques, ranging from workshops on sustainable gardening practices, articles in newspapers, information packages, lawn signs, lawn mower decals, horticultural calendars, kiosks at special events, interviews with the media, web sites, advertisements, posters, newsletters and fact sheets.

I think I'm going to actually skip - I was going to detail some of these - but I think in the interest of time, I'll just skip through them quickly.

Hamilton has used a public education program that makes use of a travelling display booth for community events. They've also used a pesticide-free pledge form.

Chesapeake Bay, Pennsylvania, took on a one-year project to promote the purchase of less toxic lawn care products. They worked with nine retailers in the area and they trained retail staff and integrated pest management and provided "shelf talkers" and accompanying literature to help customers identify less toxic products.

Seattle. In the early 1990s both the city partner and the county began collaborating on programs to change the number of yard

and gardening practices by residents. Their Green Gardening program was aimed at educating the public about alternative methods of gardening, while the Natural Lawn Care program and its successor, Natural Yard Care, sought to change people's attitudes and practices.

In North Central Texas, the SmartScape program uses an educational CD and website to teach residents about native vegetation that uses less water, pesticides and fertilizer. These CDs are free and given out at garden and lawn care centres.

Frejlev in Denmark is a village in the municipality of Aalborg. Their project was part of a country-wide pesticide reduction plan to prevent groundwater contamination and meet European Union drinking water standards. Residents of Frejlev were given information about the consequences of pesticide contamination of groundwater and then asked to develop a strategy for reducing or eliminating their pesticide use. The initial meeting of 100 householders resulted in half immediately declaring they would go pesticide-free. Aalborg, the municipality, provided various supports and put up a sign at the edge of town declaring Frejlev as working towards pesticide reduction. The Pesticide Free Village concept has since spread to other villages.

Baden-Württemberg is a state in Germany. Pesticides in Germany were originally regulated through the individual states. Baden-Württemberg in 1990 passed a ban on pesticides for lawn and garden use. Then in 2001, as part of a harmonizing directive with the European Union, new countrywide regulations replaced the state regulations and allowed only a limited number of pesticides in small amounts to be used on private property.

Evaluations of the EU legislation ranged from very effective - because so few products are available for purchase - to not

effective, because the regulations are not enforced. In Baden-Württemberg, however, personal pride, interest in health, and a heightened citizen consciousness from having passed its own legislation earlier, have maintained lower levels of lawn garden pesticide use than in other parts of the country. This is perhaps similar to the situation in Hudson.

So, success factors and lessons learned regarding both bylaws and education programs. This comes from the Best Practices report. Bylaws and legislation supported with public education result in greater reduction in residential pesticide use than education programs alone.

The municipalities that achieved a high level of pesticide reduction have a by-law in place. Regarding Canadian reduction measures, a study by the UK Department of the Environment, Transport and the Regions noted that: "Most provinces indicate that their most successful programs were those that were mandatory. Those that were voluntary were not as successful."

The bylaw is only as good as its enforcement, education and permitting systems. Halifax and Quebec communities combine enforcement and education effectively through home patrols and/or inspections. This enabled them to provide face-to-face assistance tailored to meet the needs of individual residents.

In Saint-Lazare, Quebec, that community highlights the value of requiring residents to apply for their own permits rather than allowing lawn care companies or other third parties to do it on their behalf. Requiring residents to apply for themselves reduced the number of permits requested.

The bylaw provisions should be designed to accommodate changing products. For example, the Halifax Regional Municipality references the Organic Materials Review

Institute's list of prohibited materials and products. This third party list is updated quarterly.

Municipal efforts benefit from provincial and federal efforts. In Canada, while municipal bylaws can regulate the use of pesticides, local stores can continue to sell banned pesticides. However, in Quebec, the province has legislated pesticides and fertilizers containing banned ingredients are no longer available for sale. In Denmark there is zero tolerance across the country for pesticide residues in drinking water. Like PEI, almost all their drinking water comes from groundwater. They also have clear objectives towards pesticide reduction.

Regarding education, success was often achieved when residents were engaged in the process. It's helpful to engage them in designing the solution and driving the process of pesticide reduction. In Aalborg, Denmark, the homeowners were approached with information about pesticides contaminating the groundwater and were asked to help the community define, develop, and implement an action plan. The success of the project became a source of pride. Pesticide use has become a 'shamed' behaviour and the concept has spread to other villages.

Also, it's been the case that it's good to profit from, rather than avoid, controversy and public discussion. Pesticide reduction campaigns can benefit greatly from the discussion and associated free publicity. The Do-It Centre in Hudson, Quebec said its sales of herbicides decreased to 10% of previous levels even before the municipality's bylaw came into effect and they've stayed at that level since then, despite relatively low-key education and enforcement. The centre attributes this enduring reduction to education and changes in attitude achieved through the public debates leading up to the bylaw.

Bundled pesticide reduction with other landscaping issues. Multiple benefits can be achieved more cost-effectively by having an education program that focuses on a range of inter-related landscaping issues rather than just pesticide reduction. For example, the city of Seattle's Green Gardening program targeted three specific behaviours: one, reducing the amount of grass clippings going to landfill through the use of mulching mowers; two, reducing the use of chemical fertilizers and pesticides; and three, reducing water use.

Establish baseline information in order to measure change. It's important to determine current levels of pesticide use before putting a public education program in place. This establishes a baseline which can be then used as a reference point for measuring success.

Tie into hot issues and lever third party reports. Advertising and outreach programs have some effectiveness in changing attitudes and practices. When combined with media coverage of third-party reports, they have greater impact.

Develop municipal pride around being pesticide-free. For example, Saint-Lazare in Notre Dame, Quebec developed this municipal pride by using a pesticide-free logo on all city paperwork for a number of years.

Develop strong retailer involvement. Retailers have the potential to be ambassadors for pesticide reduction education initiative. The key for getting them on side is to provide - and then emphasize - possible sales benefits. In most parts of Canada the experience of retailers has been the opposite. The sales value of alternatives has been far below the revenue lost from pesticide sales. As one retailer put it: "Once you've bought a hand weeder, it lasts a long time."

However, bundling pesticide reduction with other landscaping issues helps compensate retailers for lost income from pure pesticide sales. For example, the SmartScape program in Texas promoted a wide range of native vegetation that needed less water, pesticides and fertilizer, as well as related plant care products. Local retailers and garden centres became willing partners once the economic benefits of that program were emphasized.

It's been noted that more people shop for organic lawn care products and services when there are weekly newspaper ads promoting pesticide reduction. Most successful marketing campaigns partner with local retailers to promote alternative products and services through newspaper ads, posters, etc. As well, Chesapeake Bay, Pennsylvania store employees were trained, less toxic products were labelled as such, and information and advertising was provided at the point of purchase.

Involve landscape professionals. Working with landscape professionals and involving them in the development of practices produces a greater likelihood of success than imposing standards where there's no consensus.

Designed clear and vivid messages. Many lawn care companies and garden centres indicated the need for more information to be communicated about health impacts, the benefits of non-monoculture lawns, and the lack of a chemical-free quick fix to help their lawns.

Use social marketing techniques to create effective education and outreach campaigns. Too often, education campaigns rely on information spreading alone. While raising awareness can be important, studies show that actual behaviour change rarely results just from providing more information. Community based social marketing, or CBSM, is based upon research in the social sciences that demonstrates that behaviour

change is most effectively achieved through initiatives delivered at the community level which focus on removing barriers to an activity while simultaneously enhancing the activity's benefits.

It involves four steps: one, identifying the barriers and benefits to an activity; two, developing a strategy that uses tools that have been shown to be effective in changing behaviour such as commitment, prompts, norms, communication, and incentives; three, piloting the strategy; and four, evaluating the strategy once it has been implemented across a community. A lot of the education program's I've talked about already have used social marketing techniques in their delivery.

I've included in section 4 a quick reference on what community-based social marketing is, and how it works, and how various groups can put it to use.

Finally, section 5 is a list of links and then a bunch of copies of fact sheets and other information that come from the Best Practices communities I've mentioned, other communities, and there's plenty of information in there that you can look at.

So thank you for your time and listening. I hope it was at least moderately entertaining.

**Chair:** I think it was awesome. I'm really glad you put it together.

**An Hon. Member:** I'm reading What God must be thinking.

**Ryan Conway:** Yeah, it's pretty funny, isn't it?

**Chair:** We are going to take a break on this and then we're going to go in camera and we'll start a little discussion further on where the committee will go from here. Okay? So we'll take a five-minute break and we'll be back.

**Clerk Assistant and Clerk of Committees:**

Just before the committee leaves, while we're in camera, would it be all right if Melissa joined us? It's just part of her training as a new (Indistinct) clerk.

**Some Hon. Members:** Sure

**Chair:** Agreed?

**Clerk Assistant and Clerk of Committees:**

Is that agreeable to everyone?

**Some Hon. Members:** Agreed.

**Clerk Assistant and Clerk of Committees:**

Thank you.

The Committee went in camera