MINUTES

SPECIAL COMMITTEE ON COSMETIC PESTICIDES

Tuesday, November 8, 2011
10:30 a.m.
420 Strategy Room, Morris J. Wosk Centre for Dialogue
580 West Hastings Street, Vancouver, B.C.

Present: Bill Bennett, MLA (Chair); Rob Fleming, MLA (Deputy Chair); Scott Fraser, MLA; John Slater, MLA; Ben Stewart, MLA.

Unavoidably Absent: Barry Penner, Q.C., MLA; Michael Sather, MLA; John Yap, MLA.

1. The Chair called the meeting to order at 10:35 a.m.

2. Opening Statements by Chair, Bill Bennett, MLA.

3. The following witnesses appeared before the Committee and answered questions:

1) UVic Environmental Law Centre
   Chris Tollefson
2) David Suzuki Foundation
   Lisa Gue
3) Keith Solomon
4) Union of British Columbia Municipalities
   Rhona Martin
   Jared Wright
5) Integrated Vegetation Management Association of BC
   Peter Mohammed
   Gwen Shrimpton
   Dave Spata
   Barbara Kaminsky
   Kathryn Seely
6) Canadian Cancer Society, British Columbia and Yukon
7) Integrated Environmental Plant Management Association of Western Canada / The Kootenay Lawn
   Jacquie Doherty

4. The Committee recessed from 12:14 p.m. to 1:02 p.m.

5. The Committee recessed from 2:36 p.m. to 2:47 p.m.
6. The Committee adjourned to the call of the Chair at 3:51 p.m.
Committee Meeting Schedule

**Chair:**
* Bill Bennett (Kootenay East BC Liberal)

**Deputy Chair:**
* Rob Fleming (Victoria–Swan Lake NDP)

**Members:**
- Barry Penner (Chilliwack-Hope BC Liberal)
- John Slater (Boundary-Similkameen BC Liberal)
- Ben Stewart (Westside-Kelowna BC Liberal)
- John Yap (Richmond-Steveston BC Liberal)
- Scott Fraser (Alberni-Pacific Rim NDP)
- Michael Sather (Maple Ridge–Pitt Meadows NDP)

* denotes member present

**Clerk:**
Kate Ryan-Lloyd

**Committee Staff:**
Morgan Lay (Committee Researcher)

**Witnesses:**
- Mae Burrows (Executive Director, Toxic Free Canada; First Call: B.C. Child and Youth Advocacy Coalition)
- Jacquie Doherty (President, Integrated Environmental Plant Management Association of Western Canada)
- Lisa Gue (David Suzuki Foundation)
- Barbara Kaminsky (CEO, Canadian Cancer Society, B.C. and Yukon Division)
- Rhona Martin (Union of British Columbia Municipalities)
- Peter Mohammed (President, Integrated
The committee met at 10:35 a.m.

[B. Bennett in the chair.]

**B. Bennett (Chair):** Good morning, ladies and gentlemen. Welcome to the legislative Special Committee on Cosmetic Pesticides. My name is Bill Bennett. I'm from the East Kootenay, and I happen to chair the committee.

I'd like to start out by having our members introduce themselves and say where they're from, starting to my right here.

**B. Stewart:** Ben Stewart, the MLA for Westside-Kelowna.

**J. Slater:** I'm John Slater, the MLA for Boundary-Similkameen.

**R. Fleming (Deputy Chair):** Rob Fleming, MLA for Victoria–Swan Lake.
S. Fraser: Scott Fraser, MLA for Alberni–Pacific Rim.

Welcome, Chris.

B. Bennett (Chair): Thank you, Members. Of course, Rob is also the Deputy Chair of the committee. We don't have our full committee here this morning. We have one member who is phoning in and should be with us momentarily. So there may be a slight disruption here in the next 15 minutes, perhaps. We'll get through that.

Two members that normally sit here both have pretty compelling personal situations happening in their lives today that don't enable them to be here. So my apologies for their absence, but we're all ears here this morning.

Let me also introduce, with Hansard, over here, who will be recording the proceedings today — and that will be part of the Hansard record and be available on Hansard's website in the next few days — Michael Baer, to the right, and Monique Goffinet Miller.

Also up front with me are Kate Ryan-Lloyd, our Clerk for the committee and with the Clerk of Committees office and also Deputy Clerk for the Legislature; and Morgan Lay, our very capable researcher, in the back. She has a complicated task ahead of her, to sort out all of the technical testimony that we've heard so far and that I'm sure we'll hear today. But we're going to help her with that.

Welcome, Chris. Our presenters have one half-hour in total, and if you leave us some time, there are always lots of questions from committee members. But that's up to you. You have a half-hour. If you're still talking at 28 minutes or so, I'll let you know. Proceed.

Presentations

C. Tollefson: Thank you, Mr. Chair, members of the committee, committee staff. I very much appreciate the invitation to come and address you today. I am the executive director of the Environmental Law Centre at the University of Victoria.

Today I want to cover off four points, and I do hope, Mr. Chair, that I will complete in time for questions. I'll plan on doing that.

I want to first of all talk a little bit about my organization, our perspective and our mandate generally, and on this issue in particular. Then I want to address the legal context, the jurisdictional context that frames this issue, the issue that you are considering in these hearings — and, in particular, talk about the leading case in the Supreme Court of Canada, the decision in Spraytech and town of Hudson in 2001.

That case, of course, as you know, affirms the relevance and the importance of the precautionary principle in deliberations around regulatory reform. I want to spend a fair bit of time talking about the principle and how it can be applied and put into a proper context in moving forward around this issue.

Finally, what I propose to do is to make some comments at a fairly high level in relation to a model bill that the Environmental Law Centre proposed. It is set out in a
discussion document that we prepared in a previous round of consultations back in February 2010 — copies of which, I believe, have been circulated.

First of all, about the Environmental Law Centre. It's a non-profit society that partners with the faculty of law to run Canada's first and largest public interest environmental law clinic. The clinic offers students an opportunity to get hands-on advocacy experience around public interest environmental law issues.

They do that by providing advice and representation to a range of groups. In fact, one of the groups that we've worked with is represented here today and will be making submissions on their own behalf this afternoon. Our approach is to advocate in a thoughtful, pragmatic and scientifically sound way around law reform issues and to promote access to justice for clients and for causes that would otherwise potentially not be represented, potentially not have a voice.

Today I'm speaking as the executive director of the ELC. I am not a pesticide science expert or a legal expert per se. Certainly, others have testified before you, and others on this panel likely have much superior knowledge to me in that regard. Rather, what I'm trying to do, I think, in my submissions is put your task into a broader context, a legal context — and a law reform context, which is really the area of law that I'm most familiar with.

As I've indicated, the discussion paper that I've circulated, which I am not an author of but which was prepared by my centre, was prepared on behalf of two or our clients: the Canadian Cancer Society, B.C. and Yukon — who, as I say, are represented in the gallery today, and their representative, Kathryn Seely, will be making submissions at 2:30; as well as Toxic Free Canada.

The legal context. I think this is important in many ways, although this issue had certainly gained a lot of public attention before this case. After this case there is much more certainty around the legal principles that are applicable here. The Spraytech case arose, as you know, as something of a test case brought to challenge the authority of local governments to enact bylaws in this area. As you know, local governments are creatures of the provincial government. They're emanations of the provincial government. There's no reason that all three levels of government could not play a role in regulating this activity.

The outcome in this case was quite interesting and a very strong affirmation of the power of local governments to steer policy and to pass legal regulations. Here the court said that not only was the bylaw that was challenged consistent with the enabling legislation — this is a Quebec town, a small town near Montreal — but as well, when you look at this bylaw against the context of other legislation that was on the books, both federal and provincial, there was no inconsistency. There was no reason that all three levels of government could not play a role in regulating this activity.
In reaching that conclusion, the court mentioned and discussed at some length two very important concepts.

The first is the subsidiarity principle, the notion that regulation is often best pursued at the level that is closest to the citizenry. That is the level where the most responsive legislation can emanate because of the grass-roots nature of the individuals who are often elected to those offices. This is the first time, by the way, that the Supreme Court has ever mentioned the concept. It's significant that they mention it in the context of upholding this bylaw.

The other principle, again mentioned for the first time in the Supreme Court's jurisprudence, is the precautionary principle. It's that principle that I want to turn to in a minute, and I have a few observations to make in that regard. But before I do that, I just kind of want to fill in the legal context from 2001 to date.

After 2001 — and I think this was a reflection of the result, to some degree, in the Spraytech case — there was a dramatic expansion in terms of local government initiatives around this issue, as well as provincial legal reforms. In our paper — this is, of course, applicable up to February 2010 — we trace that at the local level there are at least 150 ordinances or bylaws regulating cosmetic pesticides, 28 of which are in this province. I imagine that number has gone up since then.

The other interesting issue that I understand the committee is aware of, certainly, is the litigation that was brought by Dow Chemical, an American corporation that filed suit under chapter 11 of the NAFTA, the investor protection provisions, in connection with the Quebec provincial ban of 2,4-D.

Now, that lawsuit was filed in 2009. It provoked significant commentary, I imagine both at the federal and provincial levels. Many legal opinions were offered as a result, and perhaps some regulatory chill occurred. We'll never know.

At the end of the day, however, this lawsuit has gone away. It was settled in the spring of 2011, with both sides bearing their own costs, which, to me, indicates that Dow recognized that it could not succeed with this suit moving forward. That issue, I think, is put to rest.

I said I would talk about the precautionary principle. In environmental law this has risen to prominence perhaps more than any other principle of law over the time that I've been doing this. The precautionary principle, as you know, is principle 15 of the Rio declaration on environment and development. Boiling it down to its basic essence, it is an articulation of the maxim "Better safe than sorry."

What it tries to do, in my submission, is something very simple. It's to turn this maxim into a regulatory obligation. Where there is uncertainty, better safe than sorry. That is the regulatory obligation.

Of course, there's a lot of controversy around this principle, and I think it bears noting that the principle, as set out in principle 15, is actually a fairly permissive one. I would
argue it's a fairly weak version of the principle, but it's important nonetheless.

I say it's weak for this reason. As you can see up there, it says that where there are threats of serious or irreversible harm, lack of full scientific certainty shall not be used as a reason for postponing cost-effective — note that; "cost-effective" is an important term in the definition — measures to prevent environmental degradation.

Basically, what that is saying is that you will not use, as an excuse for doing nothing, lack of full scientific certainty. You can use other excuses or reasons, but that is not a reason that you can use — bearing in mind that in calibrating and deciding what your response is going to be, you can engage in a cost-benefit, cost-effective analysis.

Some people worry about this being a principle that is going to hijack the agenda and take us in places and directions that the public would not support. In my view, this is actually a very permissive, but helpful, principle. Let me offer some views on how it might be helpful in a minute.

It has, since 1992, found incorporation in a wide variety of statutes around the world. Many federal statutes — the Species at Risk Act, the Canadian Environmental Protection Act, the Canadian Environmental Assessment Act, etc. — have preambles or other places in the statutory language that talk about the precautionary principle. So it's finding its way into statute law in a big way.

As Spraytech indicates, it is being used as an interpretive doctrine. When courts are called upon to interpret legislation, it is now permissible — in fact, mandatory in some situations — to refer to the doctrine.

Most interestingly, though, I think, is that it is arguably becoming a binding principle of international law. This is yet to be decided. Spraytech doesn't decide this, but it may well be on its way to becoming an actual binding principle of international law and, possibly, a principle of domestic common law as well.

This is a principle that is gradually gaining force and acceptance, to the point that it's becoming hard law. What does that mean for legislators? Well, in my view, it means a few things, at least — that we need to revisit who bears the burden of uncertainty where there are significant potential risks to the environment. We need to rethink who bears that burden — not necessarily change it but rethink it.

Secondly, I would submit that it compels regulators to respond in a proportional way to risk in a way that adapts the response as more knowledge comes to light. Let me kind of elaborate a little bit more on what I mean by those two points.

As I've said, if we're moving towards a more precautionary approach to environmental regulation, we want to think about risk and who has to bear the risk of uncertainty. We want to adapt proportional responses that calibrate to the magnitude of the risk, bearing in mind,
as always, an assessment of the costs and benefits of the regulatory response.

I would say, as part of this principle, that one has to be mindful of the principle of adaptive learning — that we harvest knowledge from those who have it, often at the local level, and we develop solutions that are mindful of the diversity of our province or of our world at the local level.

We, as well, I would argue, in applying this approach of precautionary regulation, should also seek to advance the subsidiarity principle but also in a way that bears in mind the need to have cooperative multilevel responses to problems.

I'm not someone that would urge upon you a subsidiary approach to every problem. I would argue that a subsidiarity has to be brought to bear where it makes the most sense.

As a final couple of points, as part of moving forward towards this precautionary approach, I would urge solutions that are transparent and that bear in mind that there's an obligation to facilitate regulatory transition — that laws can't change overnight, necessarily — where impacts will be difficult to address by those affected.

I want to take those principles, take some of those ideas and, in the last part of my commentary to you, offer some thoughts on our model law.

First of all, with respect to scope and application, we urge that the definition of cosmetic should be a non-essential use of any white-listed pesticide. We'll talk about white-listing later.

**S. Fraser:** Non-white-listed.

**C. Tollefson:** Sorry. Right — non-white-listed. That does make a difference. Thanks for that.

So that's the starting point. The provincial law, in our view, has some additive value to existing municipal efforts for a variety of reasons, among them that municipalities can't regulate the sale of pesticides under the current Community Charter provisions, and there are issues as to their ability to regulate on non-municipal, non-residential property. The provincial law that's being contemplated has a very important additive role in those areas.

We support continued exemptions or exceptions for agriculture uses, forestry, and health and safety, but we would urge that those types of uses be regulated through a permitting regime. In this regard, where there are sectors that are going to be impacted, we would support time-limited transitional provisions. Golf courses might fall into that category.

Finally, we would strongly urge that this committee not recommend a pre-emption of local bylaws. We see it as being very important to the solution here that local governments continue to play an important role in regulating and raising the bar as necessary.

All of which is to say that in our submission around scope and application, these
proposals reflect a proportional approach — an approach that is mindful of costs and benefits and allocations of risk, as well as a subsidiarity approach that recognizes the right and, I think, the ability of local governments to address these problems in suitable ways.

As for the listed products, yes, we would urge a white-list approach that identifies low-risk pesticides, akin to that which has been adopted in Ontario and Quebec. We would see this as being complementary to federal regulation around manufacture, distribution and use. This white-listing approach, I think, is very much consistent with the precautionary principle — revisiting, as I've indicated, the burden of uncertainty.

A white-list approach, as well, has the benefit of transparency, which other approaches do not. I think that is a very positive feature of our recommendation in that regard.

Finally, we address questions of enforcement, public education and public accountability. Our proposal strongly urges that a point-of-sale approach to enforcement be adopted, as opposed to a use-ban approach. In our view, experience from other sectors, experience from other jurisdictions, strongly suggests that this is by far the most efficient, cost-efficient approach.

If we combine this with reporting and recording obligations and align this with public education efforts, we see this as a win-win situation — again, recognizing the subsidiarity principle, recognizing that various levels of government need to stay involved in this and recognizing that proportionality is an important concern to many that are debating this issue.

Public education. We talk in our paper about the need for training, and continuing training, across the board for all of those who are involved in the issues around this sector, whether they be vendors, dispensers, applicators and users. Again, I think this is something that is militated in favour of, from a proportionality point of view, and is very much aligned with adaptive learning.

Finally, in terms of public accountability, we set out some ideas around data gathering and reporting across the board — suggestions that, again, support transparency, enhance adaptive learning and, in our view, are a proportional way to deal with this important and pressing problem.

With that, I think I will stop and invite the committee to ask any questions.

**B. Bennett (Chair):** Thank you very much, Chris. I appreciate that.

**Committee members? Questions?**

**S. Fraser:** I always have questions. Chris, your submission was very interesting. You actually, towards the end there, were saying "no pre-emption of local government bylaws." That's the actual polar opposite of the last presentation yesterday. The B.C. Business Council said that anything we do, if we do anything — and they were urging that we maybe not — should supersede all local government regulations. The interest of consistency was
cited. You're taking the opposite position.

An issue in 2006 on Vancouver Island. The E&N Railway integrated pest management plan introduced the use of herbicides like glyphosate, Garlon 4 and 2,4-D to control the weeds, instead of a low-pressure steam system. That was opposed by all local governments and First Nation governments along the E&N corridor.

That was supposed to be, we were told, one-time only, and it wasn't. It's become an annual event. The watersheds hadn't been mapped, even at that point, about where surface water was.

From a legal perspective, right now is it appropriate for a provincial government to override local governments if their constituencies want a higher level of protection? A roundabout way of a question, but from a legal position?

C. Tollefson: Our position — and I guess this goes to our commitment to the subsidiarity principle — is that all levels of government should stay in the game and be involved. That is a reflection of our sense that this is a very diverse province with diverse needs and one that values local participation and decision-making. So our view is, moving forward, that, much like Spraytech says, we should have a regime that allows for local governments to set the bar higher or establish different requirements, as long as there is not a direct conflict with the provincial law.

The provincial law basically would provide, where the municipality has not been involved in this area and has not passed bylaws, a floor and would provide certainty across the province as to what the basic requirement is. But it would be open to local governments to add to that or vary that as long as they don't create a situation where it's impossible to comply with the law, with both laws.

B. Bennett (Chair): Chris, let me see if I can, in a very general and probably not a very precise way, characterize what you're suggesting. And I haven't had the opportunity to read this yet, but I will.

You're suggesting that the province could create a white list similar to what they have in Ontario and Quebec. Presumably, those would be non-synthetic products generally available to the public, and we'd like you to use those wherever possible — but no ban on the Killex and the Roundup and so forth but a better job at the point of sale in terms of education. Is that it, in a nutshell? I mean, is that what you're suggesting?

C. Tollefson: In terms of the province's role? I think there's more that could be done around reporting and education and enforcement. But yeah, basically, I would see that the provincial law would consist of a white list that would identify, for the province's use, which are appropriate.

B. Bennett (Chair): Public education would drive the consumer to the white list.
You'd have to have enough public education. You'd have to spend enough dollars to make sure that people were aware of what was on the list and why they should use it.

But you still wouldn't foreclose the choice by consumers of going into a landscape store. If they have an acreage of five acres outside of Cranbrook and they needed some Killex or some Roundup, they could still go in and get it. But if they did, they would probably get a better sort of education than what they get today?

C. Tollefson: No. I think that the white list would be mandatory across the province.

B. Bennett (Chair): What are you suggesting at point of sale? If the white list is mandatory and you can't buy the other stuff, what...?

C. Tollefson: The point of sale is for instructions around application.

B. Bennett (Chair): Using the products on the white list?

C. Tollefson: Yes.

B. Bennett (Chair): Okay. So you said "rather than a ban." That sounds like a ban.

C. Tollefson: At the retail level, for the uses that we're talking about, yes. You have to recognize that we would continue to have some of these other products available for various other uses — forestry, agriculture, public health applications, and so on. But for what we're talking about — cosmetic, non-essential uses — the white list would be a provincial law.

B. Bennett (Chair): I'm sorry to belabour this, but I don't understand what would happen at the point of sale. If you've already banned these other products, what sort of education is taking place?

C. Tollefson: Well, I guess there may be issues as to what use you're putting it to so that at point of sale, if you're saying, "I'm going to use it for agricultural uses," then you'd have to show a permit, and you'd have to be affirmed that you're aware of the restrictions around application and so on. There'd be point-of-sale issues in that regard.

Even for white-listed substances, I think there is education that needs to be done around use.

B. Bennett (Chair): Okay. Thank you very much. Sorry for my denseness. We'll try
and sneak a quick question in from Ben Stewart here.

B. Stewart: Thanks very much. It was good to see that you have some suggestions and some solutions that you've put forward.

The one part that I just wanted to understand. You mentioned about a time-limited transitional plan for certain users, and you mentioned golf courses. Could you just elaborate? What do you, the Environmental Law Centre, see as the end point for commercial users like golf courses?

C. Tollefson: Our position would be that there has to be a timetable for them to phase out some of the more dangerous, the more controversial applications. They wouldn't fit into the exceptions, the three exceptions that I've mentioned, so ultimately they would have to align with the rules that everyone else is going to have to play by. But we recognize that they are a special case.

In some jurisdictions, for instance, the exception or the phase-in has been allowed in respect to putting greens, which have special issues, whereas fairways and other areas are not given that same consideration.

I guess what we're trying to do is recognize that for those that would be governed by this new legislation, those that are not within any of those three exceptions, not everyone is going to be similarly situated, and there's going to have to be some negotiation — but from timetables established for them to be brought into compliance.

B. Bennett (Chair): I'm going to try and squeeze another question in, if we can keep the question and the answer fairly succinct.

R. Fleming (Deputy Chair): Yeah. Thanks, Chris. Just some of your slides and the point about the precautionary principle and its rise to prominence in the courts in Canada and in pieces of legislation that you've referenced. I'm just wondering if you can add maybe some international or other North American examples of how it increasingly is coming into force and if you have anything that could amplify the points that you were making there.

C. Tollefson: Sure. Well, one of the things that we have seen is, increasingly, lawsuits that are brought against government where it has failed to apply the precautionary principle. These lawsuits — some of them have been brought in the U.S. and the U.K., several of them in Australia. What I think it brings home is the point that this is sort of a central organizing principle of environmental law, moving forward. Regulators, I think, need to be able to defend and justify their decisions with reference to the principle, and they may ultimately be called upon to do so in a court of law.

R. Fleming (Deputy Chair): If I'm hearing you correctly, then, lawsuits have become increasingly successful where it can be proven that by failing to demonstrate that they've taken into account precautionary principles, whatever the environmental health issue might
be, governments are somehow failing to protect the public interest. Is that essentially the legal argument?

**C. Tollefson:** The legal argument would essentially go along those lines. Now, of course, the argument would have more traction where there is a specific mandate given to look at the precautionary principle or where the precautionary principle was referenced in the legislation. But even where it isn't, there are increasingly, I think, cases where the argument is being raised, and courts are taking it more and more seriously.

**R. Fleming (Deputy Chair):** So the precautionary principle, then, is becoming…. I mean, government's various ministries and various activities conduct risk assessments for actions that they take or don't take, so this

is adding to the spectrum of risk analysis or changing how that is done.

**C. Tollefson:** I think the risk analysis was a school of thought or an approach that in many ways predates the precautionary principle. So in some ways the two concepts have been in tension. I think that increasingly, moving forward, the two are merging.

We're seeing a recognition on the part of risk management practitioners that the precautionary principle is a reality. It's not going away. So their discipline, their approach, has to take account of it.

**B. Bennett (Chair):** Thanks very much, Chris. I appreciate your coming over and making the presentation to us. Very interesting, and we'll see what happens with the information you've provided. You've not made our job any easier, but we're better informed.

**C. Tollefson:** Thank you so much. I appreciate your time.

**B. Bennett (Chair):** We have our next witness, I believe, on the line. Welcome to the special B.C. legislative committee. I understand that you are in Ottawa.

**L. Gue:** I am, yes. Thank you for your flexibility in allowing me to participate by telephone today.

**B. Bennett (Chair):** It's good to have you.

We're in downtown Vancouver. There are five MLAs represented here today on the committee. We have a Clerk present and a researcher. We have two folks with our Hansard
Services who are recording the proceedings.

The routine for you is to take 30 minutes to make your presentation and to answer questions. You can divide that 30 minutes up however you like. When you've done your formal presentation, if you're not at 30 minutes, I know that there's been a keen interest on the part of committee members to ask questions. But that's up to you. If you'd like to introduce yourself and proceed, that'd be great.

L. Gue: Very good. Thank you, Mr. Chair and members of the committee. I appreciate the opportunity to present to you today on behalf of the David Suzuki Foundation. In my capacity as environmental health policy analyst at DSF, I have tracked progress towards banning cosmetic pesticides across the country. In every province to have contemplated a ban, health and environmental advocates have joined forces in support of strong and effective measures.

Let me just say at the outset here that I'm very pleased to be here alongside my colleagues from some of British Columbia's most respected health and environmental organizations. I want to draw your attention, too, to the joint position statement issued by 19 health and environmental organizations in support of a strong provincewide ban on lawn and garden pesticides. I forwarded a copy of this statement to the committee earlier, in the summer.

Banning cosmetic pesticides is no longer uncharted territory in Canada. Since Quebec introduced the first provincial ban in 2003, Ontario, Nova Scotia, New Brunswick and Prince Edward Island have followed suit. I plan to use my time with you today to present the highlights of our progress report on provincial cosmetic pesticide bans, in which we compared the approaches in these five provinces.

First, though, let me state for the record that the David Suzuki Foundation strongly supports a comprehensive ban on cosmetic pesticides in B.C. Chemicals used to improve the appearance of lawns and gardens pose unnecessary health and environmental hazards. We live in a world of multiple exposures to toxic chemicals, and it only makes sense to eliminate unnecessary sources like cosmetic pesticides. Safer alternatives are increasingly available.

All three levels of government share authority for regulating pesticides. Provincial action on cosmetic pesticides has led to encouraging results. Statistics Canada asked about pesticide use in their 2007 households and environment survey and found that in Quebec the number of households using chemical pesticides had dropped dramatically, to just 4 percent. This was one year after the provincial ban was fully implemented in that province. Incidentally, without a provincewide ban, 25 percent of B.C. households with a lawn or garden reported using chemical pesticides.

In Ontario preliminary study results show that levels of three of the most common lawn care pesticides in urban streams have decreased by 80 percent after the ban was implemented.

I believe you've received a copy of the report I will be referencing, entitled Pesticide Free? Oui! This is a joint publication of the David Suzuki Foundation and Equiterre in
Quebec. The 2011 progress report is an update to our 2008 publication with the same title, confusingly, which presented an analysis of Quebec's Pesticides Management Code. Back in 2008 Quebec was the only province with a ban on cosmetic pesticides.

A provincial regulation called the Pesticides Management Code was introduced in 2003 and phased in over three years. Quebec's ban targets 20 active ingredients in lawn pesticides that are classified as probable or possible carcinogens by at least one international reference agency, be it the International Agency for Research on Cancer; the U.S. Environmental Protection Agency, or EPA; the California EPA; the U.S. national toxicology program; or the European Union. The use and sale of lawn pesticides containing any of these active ingredients is banned, with no exceptions.

Quebec's methodology for developing the list of prohibited active ingredients originally contemplated screening for other chronic health effects as well, such as endocrine disruption. In the end, however, only a cancer screen was applied, because at the time there were no established reference lists for chronic effects other than cancer.

The provincial regulation in Quebec further restricts pesticide use at places for children, including daycare centres, kindergartens and schools. Only biopesticides and 14 other low-toxicity active ingredients are permitted for use in this case. The restriction applies beyond lawn care to all indoor and outdoor uses.

The Quebec Pesticides Management Code coexists with municipal pesticide bylaws. More than 120 municipalities in Quebec have bylaws in place, many of which are more restrictive than the provincial ban. In fact, in our analysis we found that the province seems to rely on municipalities to promote compliance and enforce complementary restrictions.

Based on our 2008 analysis of Quebec's approach, we put forward seven recommendations for other provinces considering similar bans, which I think will be relevant for the committee's deliberations. These are summarized on page 11 of the report I forwarded to the committee.

First, the provincial policy should be firmly rooted in the precautionary principle, and this should be clearly articulated as the guiding principle in the policy rationale. This orientation was key in facilitating early progress in Quebec.

Second, the ban should be structured in reference to a credible list of lower-risk products and biopesticides authorized for sale and use — the white list, as you've been referring to it. This is a useful way to promote compliance and ensure that new pesticides are covered by the ban.

Third, the provincial ban should be sufficiently robust so that its effectiveness does not hinge on complementary municipal bylaws, although the province should not prevent municipalities from imposing more stringent requirements.
Fourth, the ban should prohibit all cosmetic uses of pesticides in landscaping, not only in lawn products.

Fifth, the ban should be accompanied by public education campaigns to promote compliance.

Sixth, a thorough monitoring and enforcement program.

Finally, we recommended that the province should promote research and development of alternatives to conventional pesticides.

In our 2011 progress report we noted the considerable policy innovation as four other provinces followed Quebec's lead and banned cosmetic pesticides. These provincial bans generally share a common purpose: the protection of health and/or the environment from needless exposure to pesticides. But the approach varies considerably from province to province. We compared the different approaches, with the aim of identifying the most promising models, and I'll summarize that for you now.

As you're probably aware, after Quebec, Ontario was the second province to implement a ban. The Cosmetic Pesticides Ban Act was passed in Ontario in 2008, and corresponding changes to the provincial pesticide regulation took effect on Earth Day 2009, with some remaining provisions phased in over two years. In contrast to the Quebec regulation, Ontario's ban applies to pesticides for gardens, shrubs and trees — with some exceptions — in addition to lawns.

The basic orientation of the Ontario policy is that only biopesticides and lower-risk active ingredients should be used in landscaping. Active ingredients that meet these criteria are identified in a schedule to the regulation, and all others are banned. Pesticides containing a banned active ingredient whose federal label identifies only cosmetic uses are prohibited for sale in the province. New products and active ingredients are evaluated against the established low-risk criteria and added to the appropriate schedule.

At present the cosmetic use of 96 active ingredients is banned in Ontario as well as the sale of 172 products containing these chemicals. An additional 103 mixed-use products are subject to retail restrictions. These products contain active ingredients that are banned for cosmetic use on lawns and gardens but have other labeled uses beyond the scope of the ban.

Ontario allows an exemption for the promotion of public health and safety. This exemption allows pesticides containing the active ingredients glyphosate and glufosinate — found, for example, in Roundup and WeedEx products — to be used to control plants that are poisonous to the touch.

While Ontario's ban improves, in many respects, on Quebec's model, a weakness is that there is no requirement for third-party certification at the point of sale to verify that mixed-use pesticides are actually being purchased for an exempted use. However, self-service retail access to mixed-use products is prohibited, and store owners are required to provide information about the cosmetic pesticide ban to customers who purchase them.
A second weakness in Ontario's approach is that the provincial ban supersedes municipal bylaws. If Quebec's ban can be criticized for its limited scope that essentially requires complementary municipal action, Ontario's ban presents the opposite problem of capping municipal policy of innovation. Ontario municipalities are not able to enforce tougher restrictions on pesticide use and do not have a clear role in enforcement.

Turning to New Brunswick, this province became the third to ban certain cosmetic pesticides in December 2009, but its approach is less comprehensive than Quebec and Ontario bans. The New Brunswick ban targets only one active ingredient, 2,4-D, in lawn pesticides only.

In addition, the ban extends to any lawn pesticide in certain packages or formulations that are less targeted or subject to misuse — weed-and-seed mixtures, products using spray cartridges designed to be applied with a garden hose, concentrated products requiring mixing or dilution, and granulated products. In all, more than 200 lawn pesticides are now banned in New Brunswick.

The 2,4-D products are the only pesticides banned with no exemptions. Lawn care companies can access other generally prohibited products under certain conditions. This concession to the lawn care industry results in a less coherent policy and is a significant weakness of New Brunswick's approach.

Unlike Quebec and Ontario and also Nova Scotia, which I'll get to in a moment, New Brunswick did not introduce new legislation or regulations but used existing authorities under its 1974 Pesticides Control Act. In announcing the ban in 2009, the government hinted that this was a first step and pledged to undertake a public review of the Pesticides Control Act. So far as I know, however, this process has not yet begun.

Prince Edward Island amended its rules to match those in New Brunswick on April 1, 2010, and I won't make any further comment about that.

Finally, Nova Scotia has Canada's newest provincial ban on cosmetic pesticides. The Non-essential Pesticides Control Act took effect on April 1, 2011, with certain provisions to be phased in next spring. In effect, if not in form, the New Brunswick ban is quite similar to Ontario's approach. Its list of allowable pesticides regulation sets out permitted lower-risk active ingredients — a white list, if you will — and pesticides containing active ingredients not on this list are prohibited.

The Nova Scotia ban applies beyond lawn pesticides to products for trees, shrubs and ornamental flowers, but vegetable gardens are exempt, which is not the case in Ontario. Nova Scotia's ban allows exemptions in certain circumstances, with retail restrictions on the sale of mixed-use products. As in Ontario, pesticides containing the active ingredient glyphosate are generally prohibited but can be used to control plants that are poisonous to the touch.

There is also a broader exemption for the use of pesticides to control invasive species other than plants. This is a key weakness in Nova Scotia's approach, as this uncontrolled
exemption would seem to open a significant loophole for the use and sale of insecticides not on the list of allowable pesticides. Nova Scotia has never authorized municipal pesticide bylaws, except for Halifax. This policy remains unchanged with the introduction of the provincial ban.

Based on our review of cosmetic pesticide bans in these five provinces, we concluded that the regulatory frameworks in Ontario and Nova Scotia offer the most robust models, although there is room for improvement. The Ontario and Nova Scotia bans are the most comprehensive in that they apply beyond lawns to other aspects of landscaping and prohibit a large number of pesticides.

Ontario has the edge in terms of scope, because vegetable gardens are covered by the ban. On the other hand, Nova Scotia includes glufosinate in the ban, which Ontario allows for use to control poisonous plants.

Both provinces have established a credible reference list of permitted lower-risk active ingredients — the white list — and prohibit all other cosmetic pesticides. This prevents the ban from becoming outdated, as new pesticides that appear on the market are automatically covered, in the case of Nova Scotia, or classified, in the case of Ontario.

However, it is important to note that exemptions permit the use of pesticides that are generally banned in Ontario and Nova Scotia, and these exempted uses are not always well controlled. There is no requirement for third-party certification at the point of sale to verify that the pesticides are actually being purchased for an exempted use.

To the extent that provincial bans on the cosmetic use of pesticides allow for exemptions, permits should be required. Retailers should also be required to maintain a record of pesticide sales for exempted uses in order to monitor and address possible abuse.

Another limitation of the bans in Ontario and Nova Scotia is that these provinces do not allow municipalities to further restrict pesticide use within their territory, other than the city of Halifax in Nova Scotia. Quebec allows municipalities to go beyond the provincial ban, but then Quebec's provincial regulation is less stringent than in Ontario and Nova Scotia.

From our perspective, the provincial regulatory framework must be as strong as possible, to protect human health and the environment throughout the province. However, municipalities should also retain the power to innovate, to further restrict pesticide use beyond the requirements of the provincial ban. It's also important to establish a coordinated approach for inspection and enforcement.

No province prohibits the cosmetic use of pesticides indoors except for the restrictions on pesticide use in places for children under Quebec's Pesticides Management Code. This is an important area for improvement. Logically, cosmetic pesticide bans should extend to indoor applications such as pesticide use on houseplants.
Finally, all provincial bans currently exempt golf courses, although most require golf courses to meet reporting and/or certification requirements. This is another obvious area for improvement.

B.C. should seize the opportunity to build on the experience of other provinces. In conclusion, we urge the committee to recommend a cosmetic pesticide ban for B.C. that is at least on par with the leading models in Ontario and Nova Scotia — and even improve.

I'd be happy to answer any questions.

B. Bennett (Chair): Okay. Thank you very much, Lisa. We've got a few minutes here for questions. Let me just see if there are committee members who have questions.

Nobody has their hand in the air right yet. Let me just ask you…. You didn't mention anything about Health Canada's work on the use of pesticides. You seem to start from a premise that they're not worth the risk, that they're dangerous and that we provinces should ban their use. I think you indicated that we should include golf courses in that ban.

How do you see the work that Health Canada does in assessing the risk from pesticides?

L. Gue: Well, again, all three…. This is an area of shared jurisdiction, and I recognize that that makes things a little bit more interesting. I guess I would respond in two ways.

First of all, Health Canada does not specifically examine the necessariness of pesticides that are registered for use federally, and that, as you said, really is the premise — or, in large part, a key premise — for our support of a cosmetic pesticide ban. These simply are unnecessary exposures, and there are less hazardous options available.

That's, I guess, the area where we see provinces and municipalities stepping up to the plate. It's great to see that dozens of municipalities in British Columbia have already gone down this route. But of course, the province can further restrict the sales of cosmetic pesticides, which really assists with enforcement.

My second point I guess I'll make in response comes back to the precautionary principle. The science evolves, and we are only beginning to understand, in some cases, the risks and hazards associated with cumulative and synergistic exposures to multiple chemicals. Of course, there have been many cases in the past where pesticides registered by Health Canada have subsequently been withdrawn.

Again, our perspective is that, at least in the case of cosmetic pesticides whose sole purpose is to improve the appearance of lawns and gardens, this is a hazard that we can simply avoid and that that's the preferable path.

R. Fleming (Deputy Chair): Thank you, Lisa. I just have one question that our
previous presenter, who gave us some legal things to think about, with regards to legislation in your comparison of what other provinces are doing.

One of the principles he mentioned that is connected to the precautionary principle in international declarations is that governments take steps that recognize the precautionary principle but that the measures they take be cost-effective.

I'm just wondering in your interprovincial comparison here whether you have analyzed any feedback around administrative ease and enforcement and also, just generally, public understanding. Which provinces are doing public education the best and all the other things that are complementary to the legislative measures that were taken?

**L. Gue:** Thank you for the question. I mean, it is an area that we highlighted as necessary. The reality is that in most provinces other than Quebec the bans are quite new, so those assessments would really be premature. We weren't able to access economic data, for example — obviously in the provinces that are still just phasing in the bans. We focused on an analysis of the legal and regulatory frameworks themselves.

My sense, however, is that, first of all, we have some inkling of what this looks like from the municipalities that have gone down this road, and the provincial bans really are about establishing a new norm. It's about prioritizing a value of environmental protection, of health protection and coming to see our green spaces as beautiful in that new way.

I do not anticipate large, significant economic implications one way or the other. I note that the professional landscaping services, even in provinces without bans in place, routinely now offer organic packages to their clients. So I think from that perspective the option of a ban is really about reinforcing a trend that, in some ways, is already developing.

**B. Bennett (Chair):** Thank you very much, Lisa. It's Bill Bennett here again. We appreciate your time in helping us out with the information, and I hope you have a great day in Ottawa today.

**L. Gue:** Thank you for the opportunity to join you today.

**B. Bennett (Chair):** Committee members, we're running a little bit behind, but not too much.

Mr. Solomon, are you on the line?

**K. Solomon:** Yes, I'm on the line, sir.

**B. Bennett (Chair):** Thank you very much. This is the Chair of the committee, Bill Bennett. I'm a member of the Legislative Assembly here in British Columbia, representing the constituency of Kootenay East, which is over in the southeast corner.
Cranbrook is the largest centre in my area.

I think I should perhaps get my committee members just to introduce themselves so you know who's sitting here today, starting with Ben Stewart.

**B. Stewart:** Thanks very much. Ben Stewart, member for Westside-Kelowna in the Okanagan Valley.

**J. Slater:** John Slater, MLA for Boundary-Similkameen and part of the Okanagan Valley.

**R. Fleming (Deputy Chair):** Rob Fleming, MLA for Victoria–Swan Lake and Deputy Chair of the committee.

**S. Fraser:** Scott Fraser, MLA representing Alberni–Pacific Rim. Welcome, Keith.

**B. Bennett (Chair):** Dr. Solomon, I understand you're at the University of Guelph.

**K. Solomon:** That is correct. I'm a professor emeritus. I supervise grad students and do research, and I've been here at the university since 1978.

**B. Bennett (Chair):** Well, 1978. I graduated from the University of Guelph in 1976 with my undergrad degree, so I missed you.

**K. Solomon:** Well, too bad I didn't get a chance to mark you.

**B. Bennett (Chair):** That's okay. I wouldn't have taken any courses from you. They'd be too hard for me.

**K. Solomon:** Oh, I don't know about that.

**B. Bennett (Chair):** Anyway, thank you for your time here today. You have 30 minutes. Typically, presenters have taken anywhere from 15 or 20 minutes to do their presentation, and then we have time for questions. Regardless of how much time you leave for questions, I'm sure that we'll have lots for you. So why don't you just proceed.

**K. Solomon:** Okay. I will just call out the slide numbers as I move from one to another. The first one is just introducing me and the title. The next slide, slide No. 2 — just to remind you that there's a lot of information available about pesticides. This is a book that
Gerry Stephenson and I co-authored on pesticides in the environment. So lots of the information that I'll be presenting is, in fact, taken from texts such as this one and others.

We move to the next slide, No. 3. Pesticides are used for a large number of uses in food and fibre, but they're also used for what I would call aesthetic uses. The image you see here of a dandelion-infested boulevard is something that some people don't mind and some people don't like.

If we go to the next slide, No. 4, pests can do very significant damage to our aesthetic spaces, our own gardens and public spaces. You can see damage to lawns here. There is some birch miner, which will do damage to birch trees, and you can see fungus, bottom right; skunk damage, top right; and chinch bug, top left. All of these cause damage that is difficult to prevent other than with the use of pesticides. You can replace the grass, or you can use some other techniques, but the pesticides are often more effective.

If we move to the next slide, this is just a picture of a home garden and an inset at the bottom right of a painting by Vincent van Gogh. Both of these are aesthetically pleasing to people. People are willing to pay money for paintings by famous artists and also, obviously, to make their gardens attractive and give them a pleasant environment to live in.

Slide No. 6, if we can move on. By law, anything that controls a pest is defined as a pesticide, but within the class of chemical pesticides there's a vast range of substances which have very, very different biological and physical properties. There are a couple of photographs there. There's an insecticide, top right, and then…. You probably haven't thought about it, but the disinfectant that you use in your toilet bowl is, in fact, a pesticide that kills bacteria and is actually registered as a pesticide. So we still use these routinely in our houses, even in places that have enacted bans.

They obviously cause effects in the target organism. Otherwise, you wouldn't use them. It would be a waste of money. Some are fairly toxic to non-target organisms, and some are, basically, essentially innocuous, so there's a range here, and that's the important point. Not every pesticide is highly toxic. Not every pesticide is highly dangerous.

If we move to slide No. 7, pesticides to be used in Canada must be registered. In order to register a pesticide in Canada, you have to take to the pest management regulatory agency in Ottawa a large amount of data that shows that the pesticide, if used as written on the label, will not cause any adverse effects or risks to either the environment or to humans. This is basically the same process that is used in other countries, such as the United States, the European Union member countries and then, also, in many other international jurisdictions who often use the auspices of the World Health Organization for their risk assessments.

This data that is reviewed is current as well as historical data, and it's regularly updated. The 2,4-D review, just as an example, was recently completed in 2007, which was a re-review of a product that had been looked at for
many years over and over again, and it's still registered here in Canada.

An important point about these studies is that all of them must be done now under what's called good laboratory practice guidelines, which means, basically, that they are done according to standard protocols and that there is a quality assurance and auditing process in place that actually ensures that what people say was done in these studies was, in fact, done. Just to remind you, Health Canada, which is the mother agency for the PMRA, is also the agency that approves the use of pharmaceuticals in Canada.

We move to slide No. 8. Just some pictures to remind you of the kind of testing that's done. Rats are often used as surrogates for mammals, and for environment they might use birds, such as the bobwhite quail on the bottom left. There are many, many studies that are done with these, and this data is then used in assessing the risk of the pesticide.

Slide No. 9, the next slide, shows fish being used in toxicity testing for chemicals. This kind of data is used, then, to assess impacts or potential impacts on organisms in the environment. The focus at PMRA in Ottawa is both environmental and human health, to make sure there is protection in both of these areas.

If we move to slide No. 10, the testing data is reviewed by the regulators. This is either PMRA or other parts of the world. They use what I call the precautionary approach to set guidelines for exposures for humans. They use safety or what we like to, in the science, call uncertainty factors. If you find that a chemical has no effect at a certain concentration in a rat, then you would say, "Well, for humans, we will only allow an exposure to one-tenth that concentration," because, obviously, humans aren't rats.

We'll add another uncertainty factor or safety factor of ten times, because we know that some humans are different from other humans. So the sort of basic safety factor that you see for pesticide exposure is 100-fold from the most sensitive animal tested, the most sensitive end point. Then, in addition to that, there may be additional factors added — up to ten. So you multiply these together, and it's 1,000-fold safety factor. This would be in relation to exposure, say, for children, who might be deemed to be more sensitive.

From all of this and an application of these uncertainty factors, the acceptable daily intakes are calculated here in Canada. In the United States they use a different term for that, which is "reference dose". They also develop environmental exposure guidelines.

Go to slide 11. At least in home and garden use, most pesticides are actually very non-persistent. They only have short-term effects on target organisms. That's the reason why they often have to be used more than once in a season and why you get rapid re-invasion by weeds and insects. Certainly, for herbicides, these generally have very low toxicity to non-target animals, because they are basically designed to control plants.

Of course, they will damage plants if they are deliberately spread on them, but that's the reason why you might use a herbicide.

Go to slide No. 12. When we look at hazards from chemicals, we are really looking at
two issues. One is toxicity, and the other one is exposure. The overlap between these two circles — and if somebody presses the space bar, you will see the word "hazard" appear — is the hazard. So the larger the exposure, the larger the hazard. The larger the toxicity, the larger the hazard. So we use toxicity data and we use exposure data to assess the risks from pesticides.

Slide No. 13 shows two herbicides — 2,4-D at the top and then MCPA, a similar product. On the right are the toxicity values for rats and mice. These are the most sensitive values. These are not very large numbers. To compare them to something, perhaps, that you're all familiar with, table salt would be lethal at 300 milligrams per kilogram. So these materials are less toxic than table salt. I'm not suggesting you use them on your fish and chips but just to put it into some sort of perspective.

Natural doesn't necessarily mean it's safe. If we look at the natural product, which is indole butyric acid, which is the hormone that these two herbicides mimic, it's found naturally in plants. We're exposed to it when we eat plants. This is actually several times more toxic. We need less to achieve an LD50 for this product than we would for the synthetic products.

Then this is across the board. Some of the fatty acid products that are now recommended as substitutes for herbicides are in fact much more toxic to frogs than the herbicides that they're replacing. We don't necessarily always move in the correct direction.

Slide No. 14. There have been a number of exposure studies done. They are required for registration in applicators such as farmers or professional applicators. There's a requirement for food monitoring and a requirement for water monitoring in Canada for pesticide residues.

We go to Slide 15. We've done some work in our own labs here where we've looked at exposures to herbicides sprayed on turf. This picture shows the turf spraying. If somebody would click the advance there, you can see the people involved in exposing themselves to this treated turf after it has been sprayed to measure the amounts that get into the body in that process.

We go to Slide 16. These are the conclusions. In none of these cases did we see any numbers that would be of concern. In addition, the re-entry periods of 24 to 48 hours basically reduced exposures to negligible amounts. These were re-entry periods that were in use in Ontario at the time this research was done.

Slide No. 17 just quickly gives the genesis of the ban of pesticide use in Ontario. This was a report by the Ontario College of Physicians, which made some conclusions about linkages between pesticide exposure and diseases in humans.

If we go to slide No. 18, there are some issues with this report. First of all, it's based only on epidemiology. Many studies were omitted from their report. It didn't consider the toxicity data that PMRA and other agencies use. It didn't consider the exposures, and it
didn't consider the published regulatory reviews from PMRA and the U.S. EPA and other agencies.

In terms of epidemiology, in slide No. 19. Epidemiology is the study of diseases in humans. They're good organisms to study, but we are extremely difficult to work with because we don't always say what we do. These studies are really based only on correlation and suggested links, and they cannot establish causality on their own. The pictures there are of some of the famous people who were involved in the linkage between smoking and lung cancer, which is a pretty definitive fact now.

We go to slide No. 20. I've told you that the Ontario College of Family Physicians report was not very well done, but others have done the same thing. These people are not even from Canada, so I don't think there's any axe to grind here at all. But the U.K. Advisory Committee on Pesticides basically said that this report didn't raise any new concerns, and there was no reason for additional regulatory action in the United Kingdom.

We're at slide No. 21. There was another opinion on this report from the Royal Commission on Environmental Pollution. The quotation in slide 22 from this is that, basically, strong conclusions were being drawn from evidence that was of very weak quality.

Then if we go to slide No. 23, there are other opinions on pesticides and cancer from the International Agency for Research on Cancer. If you click the slide to advance that, there's really a lack of evidence linking pesticide exposure to human risks of cancer.

In Canada — slide 24 — age-adjusted cancer incidence rates have remained constant or decreased for most forms of cancer. Breast and prostate cancer have increased. Some of this is because of lifestyle issues. The other part is better diagnosis. There's no evidence of any causal link between pesticide use and cancer. Childhood cancers have not increased in Canada over the last 20 or 30 years.

Just to finish up, slide 25. Should domestic and landscape use of pesticides be banned? As a scientist and speaking as a toxicologist, there are no toxicological or health reasons for this. If you want to do it for political reasons, that's fine. That's within your mandate. But if you do that, you should be honest enough to admit that you're actually doing that.

Consider the countervailing risks. There are certainly increased costs related to either the actual cost of the alternatives or the lack of efficacy of many of these, which means they have to be applied more often, and this increases costs as well.

The alternatives are not themselves without risk. I've mentioned the issues with fatty acids being lethal to frogs.

Obviously, if we use pesticides, we should use them properly. The best way to do that, I think, is something that British Columbia pioneered over the years, which was to ensure that integrated pest management was used to make sure that all the options that are available are used.
In slide 26 I'm thanking you, and I'll be more than happy to take any questions. I did supply some reading material, if you want to ask questions on that as well. I'd be happy to try and answer them.

**B. Bennett (Chair):** Thank you very much, Dr. Solomon. We do have some questions. I'm going to actually ask a question. I'm curious to know what you have to say about the interaction of…. I'm going to look for the term here while I'm asking the question.

We've heard that the application of pesticides is an issue that…. In fact, there may be evidence that the consumer doesn't follow or even necessarily understand labels. Therefore, they're not applying the pesticide in accordance with the instructions on the label.

Is it your view that the studies that Health Canada does and the risk assessment that they perform take into account the consumer that doesn't use the product in accordance with the label?

**K. Solomon:** Obviously, they can't anticipate every single possible situation. What they do is they look at the label, and they use that as a guideline for how the chemical might be used and what the exposures might be.

One should also recognize that, at least for homeowners — and I'm not talking about professional applicators that have appropriate training and know how to do these things properly — the products that you can buy over the counter are usually in very small packages, less than one kilo or one litre. They're often in ready-to-use applicators that make mixing unnecessary.

The toxicity and environmental properties of these products are such that even if you did make a mistake, it would be very unlikely that you'd cause any harm to other humans or the environment — even if you, say, put it on twice instead of once, or whatever sort of error you made.

**B. Bennett (Chair):** Just a second and final question. Can you give us your thoughts on the issue of cumulative impact from the use of pesticides over a period of years? I'm talking about the common lawn and garden

pesticides. And while you're at it, when you're thinking about the issue of cumulative impacts, could you also, perhaps, address the other issue of synergistic impact — you know, multiple kinds of pesticides applied on a space or in an area — and whether we know what the impact might be from the combination?

**K. Solomon:** I'll start with the first question, which relates to accumulation of these materials in the environment. Once again, the products that are used in domestic situations
— the insecticides or the herbicides — all degrade rapidly in the environment. So they do not build up even over the length of the season. In fact, the weeds come back fairly quickly, within…. At least for 2,4-D you have to apply it both in the spring and the fall to get good weed control because the weeds come back.

The chemical is going away fairly quickly. The half-life of 2,4-D in soils is a matter of weeks, and some other products dissipate extremely rapidly. Glyphosate, Roundup, is gone and no longer biologically active within hours of being sprayed on soil. So there is no accumulation over time.

In terms of synergism, synergism would be an issue and is an issue with, say, pharmaceuticals, where we take two drugs, and there's an adverse interaction between them. But remember: we're taking them at the high doses that are designed to cause adverse effect — or beneficial effect in us — kill bugs or treat the symptoms of a disease.

With the pesticides, the exposures are really so small that there's no effect, and synergism requires that there be at least an effect for one chemical in order for an interaction to occur with another chemical. It also requires that the exposures be within a very short time frame of each other. So they are either together or within hours of each other for there to be sufficient probability that there be two chemicals present in the organism at the same time. But in fact, the amounts of exposure are so small that they are below any threshold of biological activity, so there is actually no risk of synergism.

S. Fraser: Thanks for the presentation, Dr. Solomon. You did refer, I think, to some of the studies done by doctors in Ontario. I want to refer to that because we did get a presentation yesterday by Dr. Cathy Vakil, based on the review of the medical literature, looking at human health effects of pesticides.

That was done for the Ontario College of Physicians. Their statement was: "We looked at over 100 studies and found that there was very strong evidence that pesticides cause birth defects, infertility, neurological diseases such as Parkinson's disease and a number of cancers, including childhood cancers, including leukemia."

Following that, we had a presentation by Dr. Bruce Lanphear. He went specifically to the issues of developmental neurotoxicity in children and went through a fairly substantive presentation on that and the clear links between that and exposures to pesticides.

Your position seems to be sort of polar opposite of what they've come up with. They claim the propensity of the studies certainly indicates that the links are there.

Then I would just refer to the European Union, because you've referred to it several times. The framework directive on sustainable applications of pesticides requires their member states to minimize or ban pesticide use in areas used by the general public. That includes sports grounds, even golf courses, and public parks. Again, their studies seem to be affirming decisions being made throughout Europe now, which I assume will include Great Britain, which you also cite.

I just wanted to know if you could comment on some of that.
K. Solomon: Yeah. Great Britain is not part of the European Union with regard to pesticide regulation. I mean, it's not part of the European Union — period. I don't know if there would be any….

I do know the framework directive, and the major focus there is on protecting water resources. Europe is a very highly populated country — a lot of agriculture close to human activity — and they want to just minimize exposures.

When you look at the actual risks, which is what the Advisory Committee on Pesticides, the International Agency for Research on Cancer, PMRA, EPA and others do, there are no obvious and serious risks. The fact that the Ontario College of Family Physicians came to this conclusion certainly, based on all the reviews of these studies that they conducted, is because they selectively took information that supported their claims and they actually totally ignored all of the data on toxicology.

Epidemiology is not a very exact science. If you look at the birth rate in Europe, it has declined in proportion to the numbers of European storks, which is a true fact, but it doesn't mean that storks bring babies. That's a conclusion that makes no biological sense, and scientists reviewing this data have come to the conclusion, as well, that when you look at the toxicology, it doesn't support these kinds of linkages.

S. Fraser: Thank you for that. Could you speculate on the motives of the Ontario College of Family Physicians and such to, I guess, jury-rig the results, as you're suggesting?

K. Solomon: They didn't jury-rig the results. They just selectively cited the literature.

They had produced some pamphlets in the past, before they did this study, where they said that pesticides were harmful and various other things, but they actually had no data to back it up. This was, I think, an attempt to provide that data. They went to the Laidlaw Foundation, which supports these types of causes, and got some funding to put together a team to address this, but they were very selective in the data they used.

The PMRA, U.S. EPA and others look at all the data. They don't just look at the epidemiology or just parts of the epidemiology. They look at everything, and they come to a different conclusion when they look at all of the information.

If you went to a court case and you only heard from the prosecution witnesses, you might come to a different conclusion.

B. Stewart: Thanks very much, Dr. Solomon. I just want to preface with the fact that as a farmer and somebody that has watched the trends and terms of pesticide safety improve
over the years, I often am wondering or expecting people that I know, who I've farmed with for the last few generations, to be subjected to all sorts of issues, such as cancers and things like that.

I guess I'm wondering, being that many of them seem to persevere and go on to very long and healthy lifestyles: is there any research — being that you're in the heartland of agriculture in Guelph, where a lot of these….? Are there studies that you're aware of that are showing science to these people that are highly exposed?

I think about the days when respirators and protective clothing were not the norm in terms of the way that farmers used to apply a lot of what I would consider to be far more toxic chemicals and the outcomes in terms of their lifestyle.

The thing about it is that we're talking about cosmetic pesticides. You yourself referred to the prepackaged sizes, the controlled size, and what we have done…. I guess what I'm saying is that…. Are the people that we're talking about trying to protect, in your opinion as a toxicologist…? Taking the extreme of the farmers that have used what I would consider to be inappropriate and poor handling procedures by today's standards, are there studies that are showing a high incidence of morbidity and other things like that in terms of their exposure, versus people that have been just homeowners working in their gardens?

**K. Solomon:** First of all, from the work we've done on homeowners and the work that's available on farmers, homeowners are exposed to much, much smaller amounts of these chemicals, if at all, than are agriculturalists, who use larger quantities, who treat much larger areas, etc., and have much more opportunity — they'd do this for several days at a time — to get exposed.

A homeowner might only spend 30 minutes or less doing any spraying in their garden, and they do that very infrequently.

You're right. Farmers in Canada tend to have longer life spans and actually have fewer and much lower incidence of most cancers when you compare them to city folks. Part of that may be because they have a healthy lifestyle. They're more active, whereas city folks are more sedentary, and that exposes you to risks from all sorts of things. Farmers do have a high incidence of melanoma, which is a skin cancer, which is directly linked to exposure to sun, so I guess it's pretty logical to figure that one out.

Certainly, the studies that have been done, particularly in Saskatchewan where there's a really good database on cancers…. Every cancer case in Saskatchewan goes into a central database in Saskatoon, and they can do very good analyses of this. Health Canada did this. Don Wigle, who works for Health Canada, did a study there and actually showed that the incidence in farmers was far lower than for people in Saskatchewan from the cities.

So I agree with you. Farmers seem to be much healthier despite the fact that they use
pesticides.

**B. Bennett (Chair):** Dr. Solomon, it's MLA Bennett here again. We're pretty much out of time, but just quickly. Have you heard of the study that was done of farmers and people who apply pesticides in an agricultural setting in the U.S.? In the last couple of years, I think, there was a massive study in the U.S. on this topic.

**K. Solomon:** Yes. There's the so-called ag health study, agricultural health study, that's being run in the U.S. It's a follow-up study. It's looking at exposures, on the one hand, and disease conditions on the other. There's a similar one, actually, in Ontario. It's being undertaken here, headquartered in Toronto but focusing on people in Ontario at the moment as well.

That's an ongoing study. It'll be interesting to see what the final results are, but again, epidemiology studies are difficult to interpret in the short term. One has to wait until the studies are finished. One of the most difficult things to do with these is to quantify exposure, and the measurements of exposure in the ag health study are actually not that frequent. So it's not going to be as easy, perhaps, as some people hope it will be to interpret that study.

**R. Fleming (Deputy Chair):** Thank you, Dr. Solomon. I just wanted to ask you maybe to comment on some testimony that we heard from Health Canada. The PMRA, in their presentation, outlined their methodologies and how they operate as a regulator and made the point that almost all of their data is from industry self-testing their own products — peer-reviewed science but not independent. That's what Health Canada relies on.

I wonder, just in light of your presentation. We have a whole host of products that were once certified as safe by our federal regulator, that the ingredients were safe, that have changed over time, that have been pulled from the shelves based on the updates of the science of those active ingredients. But often the update of the science has been pressured by what you, in your concluding slide, maybe would define as political reasons.

I'm just wondering if you could comment on that — the lack of independent sources for the research on the ingredients that Health Canada has to tell Canadians are safe and how ingredients have actually typically been removed. You cited the example around proven links between lung cancer and smoking. We know how many decades that association took to prove, and we know how many billions of dollars were spent litigating against the ability of the federal government to take action on that. I'd just ask you to comment.

**K. Solomon:** The smoking issue. Of course, the reason that…. There's so much money involved that that overrides everything. The amount of money involved in domestic
pesticides is probably very, very small compared to the agricultural uses, which probably represent 95 percent of all the profits of these companies.

Going to the issue of the testing being done by the companies, the companies are required to provide this data to the agency. In order to get that data, they pay either contractual laboratories, or they do it in-house in their own labs. This is all done using very careful checks and balances. There'll be two DVDs' worth of data that will be given to the PMRA with all the raw data on there, and the PMRA can go through and reanalyze the data, should they wish to do that. And in fact, the EPA does do that quite often.

The companies make money from selling these products, so it's probably entirely appropriate that they should pay for the testing. It shouldn't, in my opinion, come out of my tax dollars, and I think most people would agree with that. We pay for it when we buy the product, as we do with pharmaceuticals. Exactly the same rules apply there. The testing is done by the companies, and the approval is done on the basis of reviewing those tests and all of the quality assurance that goes with those tests. So basically not a huge difference there.

If we were to move that into the public sector, funding for this kind of research, we'd have to find the money from somewhere. So there would probably be tax increases. I don't think the public would take to that too kindly.

In terms of products coming off the market, certainly some of them…. The 2,4,5-T herbicide was banned in the '70s because it contained a contaminant called dioxin that was only really discovered at that time. DDT was banned in Canada in 1969 because it was causing problems in wildlife that they did not understand until that time. So yes, this has happened.

A lot of products get replaced in the market by less hazardous or less risky products. Many of the products have basically come off the market because the company has said, "Well, we have an alternative that either is more effective or safer to use for the environment or human health, and therefore, we want to switch to this product, so we're going to not renew the registration on the previous product," which results in a withdrawal from the system.

In terms of products, it might affect a lot of products at the commercial level, but in fact there are not a huge number of active ingredients, which is what are registered at PMRA, that are impacted in this way. So I don't think it's quite as big an issue as some people think it is.

**B. Bennett (Chair):** Dr. Solomon, thank you very much for your time today. We appreciate it, and it's been very informative.

**K. Solomon:** Good. My pleasure to offer anything, and if you need further information, please don't hesitate to contact me.
B. Bennett (Chair): We shall. Thank you very much, and have a nice day.
Committee members, we're going to recess for a quick lunch and reconvene at 1 p.m.

The committee recessed from 12:14 p.m. to 1:02 p.m.

[B. Bennett in the chair.]

B. Bennett (Chair): Our next witness is the Union of B.C. Municipalities — Rhona Martin and Jared Wright.

Thanks for coming, folks.

I think we'll just very quickly go through an introduction of our members here, starting with Ben Stewart.

B. Stewart: Yes. I'm Ben Stewart, the MLA for Westside-Kelowna in the Okanagan Valley.

J. Slater: John Slater, MLA for Boundary-Similkameen.

B. Bennett (Chair): I'm Bill Bennett. I'm Chair of the committee and from Kootenay East.

R. Fleming (Deputy Chair): I'm Rob Fleming. I'm the MLA for Victoria–Swan Lake and the Deputy Chair of the committee.

S. Fraser: Scott Fraser, MLA for Alberni–Pacific Rim. Welcome.

B. Bennett (Chair): So folks, 30 minutes is the time allotted for each presentation. You can present formally

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for the whole 30 minutes if you want to, or do what most presenters have done, which is to divide up formal presentation and leave time at the end for questions. But that's up to you.

I'll let you know when you're getting close to the 30-minute mark — okay? Proceed.

R. Martin: Good afternoon. My name is Rhona Martin. I'm a director in the Columbia-Shuswap regional district, and I'm chair of the Union of British Columbia Municipalities environment committee. On behalf of UBCM, I wish to thank you for the opportunity to present our position on cosmetic pesticides today.

Before I begin, however, let me remind you of who we are. The Union of British
Columbia Municipalities is an organization that has served and represented the interests of local government in British Columbia since 1905. We have 193 members, and we advocate on their behalf on a wide range of policy, regulatory and legislative issues.

One of the issues that has captured the attention of our members in recent years has been the use and sale of cosmetic pesticides.

Under the Community Charter, local governments have the authority to restrict the use of pesticides for maintaining outdoor trees, shrubs, flowers, other ornamental plants and/or turf on municipal lands and on land used for residential purposes.

Local governments, however, cannot use a bylaw to regulate the following uses of pesticides: management of pests that transmit human disease; the management of pests that impact forestry or agriculture; the residential areas of farms; buildings or inside buildings; and on land used for agriculture, forestry, transportation, public utilities or pipelines, unless the utility or pipeline is vested in that municipality. For the purposes of this presentation, our membership is not concerned with these restrictions.

Generally speaking, local governments are able to regulate the when, where and why of pesticide application. They are able to fill in the gap of provincial regulation which covers how pesticides can be applied and by whom, and federal regulation, which looks at what can be applied.

However, the Community Charter does not give communities the legislative authority to ban the sale of cosmetic pesticides. It only gives them the authority to regulate their use. This legislative restriction, in part, has prompted our membership to take a closer look at cosmetic pesticides.

In order to address growing resident concerns that cosmetic pesticides pose environmental and health risks, many local governments have enacted pesticide use bylaws. To date there are around 37 local governments that have bylaws in place that restrict pesticide uses within their communities. The bylaws in place are quite varied, reflecting different tolerance levels for pesticides as well as different pest problems within their communities.

In particular, some communities prohibit all pesticide uses within their jurisdiction, some have specific pesticides that are either permitted or exempt from the bylaw, and some allow pesticide use under a municipally issued permit.

In 2008 the UBCM membership considered the issue of cosmetic pesticide use at its annual convention. Resolution B81 called for the enactment of provincial legislation that would ban the sale and use of cosmetic pesticide. Resolution B82 called for an amendment to the Spheres of Concurrent Jurisdiction Environment and Wildlife Regulation to allow local governments to regulate, prohibit and impose requirements in relation to the use of cosmetic pesticides on all private lands.

However, after further debate and consideration, the UBCM membership recently took a more definitive position on cosmetic pesticides. In 2010 the membership endorsed
resolution B28 which again calls for the enactment of provincial legislation that will ban the sale and use of cosmetic pesticides.

The UBCM convention remains the main forum for policy-making for our membership, and the most recent adopted resolution reflects the organization's policy position. As such, UBCM supports a provincial ban on the sale and use of cosmetic pesticides. The UBCM membership's decision to support a provincial ban on the sale and use of cosmetic pesticides stems from several considerations linked to resident concerns.

Many local governments perceive cosmetic pesticides as a threat to the natural environment which can contribute to both point source contamination as well as non-point contamination. A provincial ban on the sale and use of cosmetic pesticides is another tool that local government could use to prevent water and soil contamination.

There is a perceived risk to public health and safety, particularly around the safety of children and pets exposed to pesticides on residential lawns and at public parks. Local governments have heard from several organizations, such as the Canadian Cancer Society, that have articulated the potential link between exposure to cosmetic pesticides and diseases such as lymphoma; leukemia; and brain, kidney and lung cancer.

Local governments also believe that the use of cosmetic pesticide is unnecessary, as safer and effective alternatives exist. In particular, integrated pest management includes the use of pest prevention techniques and the use of non-toxic alternatives to pesticides.

While pesticide use bylaws have been implemented in some communities, many local governments have questioned the effectiveness of municipal pesticide bans in controlling pesticide use and sales. There is the perception that local government bylaws could be by-

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passed by purchasing cosmetic pesticides in a neighbouring community.

As a result, UBCM's membership has pointed to the effectiveness of legislative bans in other jurisdictions, such as Ontario and Quebec, when calling for a B.C. ban on cosmetic pesticides.

More generally, though, local governments believe that the perceived benefits of cosmetic pesticides are overshadowed by their potential risk to human and environmental health. Given the lack of clarity on the true impacts of cosmetic pesticides, our members wish to reduce the risk to their residents and prevent threats of harm to the environment through the enactment of a provincial ban.

Thank you, once again, on behalf of UBCM. I would like to thank you for this opportunity to articulate and share our members' position on cosmetic pesticides. UBCM fully supports the enactment of a provincial ban on the sale and use of cosmetic pesticides, and we hope that our presentation will inform the committee's deliberations and decisions.

**B. Bennett (Chair):** Thank you very much. We've got lots of time for questions if committee members have questions.
S. Fraser: Thank you very much for the presentation, Rhona. I guess the first question is on the resolutions that come out of the UBCM. I very much appreciate the work you do. I was the critic for local government for a number of years, and I was a product of local government. I believe that the role your members play is the closest to their constituents, so it's important.

The resolutions that have come forward since 2008 — "What kind of response from government?" is my first question.

R. Martin: From?

S. Fraser: From government. These resolutions obviously go to the province — right? — so have you got any wisdom from those resolutions back from the province? What's the position, then?

R. Martin: I would defer to Jared.

If you could answer that question.

J. Wright: Thank you very much. Well, the province has indicated that they haven't necessarily identified any data which showed that municipal bans are ineffective. They've also highlighted the fact that legislative bans in Ontario and Quebec may not be as effective as local governments seem to think they are.

In Quebec they simply banned the active ingredients, whereas in Ontario there are exemptions — such as application allowances on golf courses, as an example.

I think, from our perspective, the province has listened to our members' concerns, particularly after 2008, by moving forward with a consultation paper. The results of that consultation paper were issued to our members. We've distributed it as well. So this is the next logical step, but we're waiting for a response from the province.

S. Fraser: Just to follow up on that. We had a presentation yesterday from the B.C. Business Council. They were suggesting that any legislation, if it is brought in by the province, at the provincial level must supersede anything that local governments can do. Is there a position that you've got on that? Their position was that they wanted to see consistency, which is an understandable sentiment.

R. Martin: I would support that. I think that was supported by the membership. They've asked for provincial regulation just to make it easier.

If you have a local government with a bylaw regulating the use and the nearest municipality down the road is five miles away and they can go and buy the product down there, then you're lost. But if it's a provincewide ban or regulation…. I think that's what
they're looking for — consistency. It doesn't matter where you go. Whether you're in a rural area or in a large city, the rules are the same for everybody.

R. Fleming (Deputy Chair): Thank you, Rhona. I appreciate the presentation and that you speak on behalf of local government in B.C. I come from the capital regional district, where we have a population of 330,000 people and 13 municipalities, which should probably be the subject of another parliamentary inquiry.

Three or four of those municipalities have pesticide bylaws, which you cited in your presentation. Ten do not. So the problem that you've discussed about lack of regulation on the sale and use of those products and whether the bans are in any way effective in municipalities that do restrict them I think is a good question. There certainly seems to be a lot of anecdotal evidence that it's confusing to citizens of the CRD, who often identify themselves as residents of greater Victoria and don't particularly know their own municipality's bylaws.

Having said that, my question is about something slightly different. We heard this morning from an environmental law centre about the principle of subsidiary and that local government is the best-equipped branch of government and the closest to its citizens to help with some of the key things that make a ban, which your organization advocates, effective. That is around public education on the alternatives, and it's probably to do with enforcement, as well, when there is a provincial law.

The argument that was presented to us this morning was not to repeal bylaws if there was a provincial ban in place but to keep them and have them operate in a complementary fashion. I just wondered if you could comment on that and whether you think local government should play a role in a hypothetical British Columbia where a ban was in place similar to Ontario's, with enforcement issues.

R. Martin: I would think that they could complement each other. I'm speaking right off the top of my hat here. This is a very emotional debate when it takes place on the floor of UBCM. There are very strong supporters of it.

I think that jointly we could work on education, because I think that education is probably the best way to move forward with this. It doesn't matter, I don't think, if it's a local government level or at the provincial level. Education is paramount to this being a success.

I would think that if they are similar, there wouldn't need to be two. I think that for the ease of especially the smaller municipalities, provincial legislation would be the best place to do it. And we're not talking about electoral areas in this whole discussion. So how do
Some electoral areas… In my regional district one electoral area has a population of 10,000 people, and yet we're not talking about them. We're talking about a municipal ban. So if we had a provincial regulation, that covers everybody equally.

I hope that answers your question. It was a bit wandering.

R. Fleming (Deputy Chair): Yeah, I think it does, thank you.

J. Slater: Thanks, guys, for coming. I was at the debate in 2008. It was a quite heated debate, and a lot of the rural communities have concerns because of that interface, urban-rural…. You know: "How can I run my orchard when the guy across the street still has his fruit trees? He can't spray them anymore." Adjacent to golf courses, if they can't use a fungicide to take care of some of the critters….

Or even in the greenhouse industry. If your houses are infested with the aphids or whiteflies or thrips or mites or something and you can't spray them, it affects the greenhouse industry.

I think that's the whole thrust of this thing. It's fine to say we need a provincial regulation to say "No more pesticides," but we have to deal with agriculture, golf courses, even some downtown stuff — right? I mean, downtown small communities are going to have issues. I know the debate was certainly not unanimous.

I think what this committee needs to do is come up with all the information. We're hearing it from.... "We don't have a problem with pesticides. The ones that Health Canada is eliminating — those are the problem areas, and the rest are safe." We have this white list of safe chemicals.

The communities that are on this list. I look at the Thompson-Okanagan, and there are only three cities in there that are on it. I know the area, obviously, and I'm just concerned. If we have a blanket policy right across B.C., how are we going to deal with some of those local issues, from your perspective, from the UBCM perspective?

R. Martin: When I listen to what you're saying, John, I hear that it's not cosmetic that you're talking about. I think you're talking about agriculture, and I don't think that the intent was to have a negative impact on the agriculture industry.

I think that your committee is hearing from people and that they will hear a lot of pros and cons. I'm sure that the wisdom around the table there can come up with a document that addresses the concerns that are being brought forward and yet keep a reasonableness in the outcome.

I mean, golf courses still need to be able to operate. Farms still need to be able to operate. But Mr. Jones that lives down the street reads the directions, and it says 1 to 500. Well, 50 to 500 must be that much better. That's the type of use that I think is trying to be addressed here.

J. Slater: Yup, and I agree with that. I'll use roses as an example. Roses are a very big
attractor of aphids — some varieties of roses. What we're saying is we're not going to be able to spray those roses anymore. And if they're adjacent to a cherry block, those cherries are going to be affected.

I guess that's what we need to address. Maybe in that area it's to have a commercial pesticide applicator be able to come in and take care of those things and not call it cosmetic, because it's endangering the agriculture part of it. Maybe that would….

R. Martin: I'm sure that there is something like a green soap or something that could be used.

J. Slater: Safer soap — yup.

R. Martin: I mean, education, as I've said, is a key component of this being successful.

B. Stewart: Thanks very much, Rhona. Just, I guess, following a little bit on that basis. Knowing that UBCM…. A lot of issues can be highly emotional about, you know, discussions that take place there. I guess when you look across the spectrum of resolutions and the decisions that are voted on and supported, from government's point of view, are they supported on the broad basis because they're supported at UBCM? In this particular case, this was passed. Does that mean that's it's supported broadly? The people that want to be there are in the room, I hope.

Of course, I'm thinking about after the highly charged debate. At the end of it, a decision was made and was voted on. I'm wondering, really, about the representation that that means for B.C. municipalities.

R. Martin: There have been three different resolutions that have been highlighted. I don't know the number of people that were present in the room, but I can tell you that each different time, there were different levels. I remember one, thinking: "There weren't very many people in the room, and now that's passed." But a lot more people have come out to be present during these very important discussions.

What we've tried to do the last several years at UBCM is to schedule meetings with people such as yourselves during times when resolutions are not on the floor, and I think that's having a positive impact on attendance during the resolution sessions.

I would think that if you were to put 50 people in the room representing UBCM or having the whole membership there, you'd still probably get a pretty good perspective of
what the actual membership thinks. As an organization, this resolution was passed, so this is now the policy that we have to move forward on. That's how we work.

**B. Stewart:** I guess where I'm going with this is that about 80 percent of the municipalities haven't chosen to enact legislation that would be restrictive in terms of cosmetic pesticides. My interpretation of that ratio is that there are a large number of communities that either are underinformed or have an opinion that they don't agree with the ban.

I'm just wondering: how would we best close the gap in terms of making community leaders, elected officials, informed about the science, the precautionary principle, and what it is we're trying to arrive at here from UBCM's perspective?

**R. Martin:** I would suggest that if you would like a response directly from each municipality, you correspond directly with them and ask for their councils' response — a formal response. Then you would actually know.

I would also suggest that perhaps there are not bylaws in place in many other communities because of the difficulty in enforcing them. If you had a bylaw…. Lake Country doesn't have one. So if you live in Kelowna, you can go to Lake Country and purchase things, or you could go to Vernon. Or as you've said, in your community you can just cross a boundary — you may not even know, if you've just moved there, that you've crossed boundaries — and pick up a product that, really, you can't have at home.

This is probably one of the reasons why many people may have a concern about it. I know in Salmon Arm it took a long time for them to come to some type of resolution — several years, I would think, of meeting with their constituents and coming up with something that was satisfactory. They have commented on that, that people can still just go down the road and purchase things.

**B. Stewart:** I guess just to finish, then: in order to satisfy the municipalities that have struggled to come up with the decision as to whether to ban cosmetic pesticides in their community, what do you think would satisfy them? I mean, the words "cosmetic pesticide" are a very broad and general term. What do you think the membership at UBCM interprets cosmetic pesticide to be?

**R. Martin:** I would think that the membership at UBCM has heard from the agricultural industry loudly and clearly, so they certainly understand the need for the use as far as the industry goes. I would say that they've also heard from the golfing industry that it's very important to them.

But they've also heard from their residents that they don't want to take their children to the community park or to the neighbours. People spray things on their lawns, and they don't even know themselves exactly what's in it and exactly what harm it will do to their children.
or their pets.

I think people at UBCM are well aware that "cosmetic" means: "We want to get rid of that dandelion. It looks unsightly."

**B. Stewart:** Something in a residential playground, park setting.

**R. Martin:** Yes. But we don't want this to impact the local economy. That's not the intent of this at all.

**B. Bennett (Chair):** Just a quick question or maybe two for either one of you, Rhona or Jared. Has UBCM analyzed the information that's available from Health Canada with respect to the use of pesticides in Canada? Have you looked at their scientific methodology and come to the conclusion that the information they have available is not reliable?

**R. Martin:** To my knowledge, no.

**J. Wright:** No, to be blunt. We are familiar, through our research and our due diligence when providing comments on the resolutions, with what Health Canada has provided. But we have not gone into it in depth, nor are we able to comment on the methodology that's been used to assess those.

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**B. Bennett (Chair):** I'm not implying any sort of judgment on my part whether you have or you haven't. I just need to understand where the opposition comes from. Basically, you're a grass-roots organization that I'm very familiar with and very supportive of.

What you're doing, if I can characterize it this way — and please, tell me if this is not correct — is you're reflecting how your members have voted on this particular issue. The institution itself, the organization, UBCM, has not gone out and evaluated science or anything like that. You're saying your members have voted to support a provincial ban.

**R. Martin:** That's correct.

**B. Bennett (Chair):** Fair enough.

**S. Fraser:** Just a follow-up. I'm aware of a resolution that went through the local association on Vancouver Island, the AVICC, representing the communities that were bounding the E&N rail corridor. This is about 2006. The integrated pest management plan was suggesting that there be an introduction of using herbicides to control the weeds, instead of a low-pressure, 25-pounds-per-square-inch steam system which was used previously.
The introduction of the use of deleterious substances actually led to the resolution — unanimous from all of the communities, from Victoria right through to Comox Valley and Port Alberni.

While there was no scientific review done of methodologies — or Health Canada or any of that stuff — what was available to the local governments was the knowledge of the local watersheds, the intricacy of the underground water systems, the aquifers, that government didn't have. So I appreciate the fact that local governments bring to the table a level of expertise and knowledge that sometimes the higher level of governments, such as they are sometimes called, don't have.

I just wanted to put that on the record.

**R. Martin:** I remember the discussion very well.

**S. Fraser:** The spraying went ahead anyways. It continues to this day, every year. And they're now mapping some of the watersheds, but it's after the fact.

**B. Bennett (Chair):** Rhona and Jared, thank you very much for coming in. Did you travel down from the Shuswap for this meeting?

**R. Martin:** Yes, I did.

**B. Bennett (Chair):** We appreciate it. Some of us have particular appreciation for having to travel in from far-flung areas of the province. Thank you.

Committee, our next presenter is the Integrated Vegetation Management Association of B.C. I have one name, Peter Mohammed.

Would that be you, sir? Please have a chair.

**P. Mohammed:** That would be me. I have two other co-presenters that are coming with me.

**B. Bennett (Chair):** You were here yesterday, as well, so you know the committee. I think we'll dispense with the introductions and just jump right into it. You've got 30 minutes to present, and you'll get your full 30 minutes. Anything that you don't use for a formal presentation we'll use for questions and answers.

**P. Mohammed:** Okay. Thank you, Mr. Chair, committee members. I'll get right into it. I'll start with some introductions. To my left is Gwen Shrimpton. Gwen's a former manager of vegetation with B.C. Hydro. Her responsibilities included the management of 70,000 kilometres of right-of-way in the province of B.C., and she has 30 years' experience
in vegetation management in the province and related fields.

To my right is Dave Spata. Dave Spata is the vegetation manager for CP Rail and has responsibilities for 15,000 miles of track in six provinces in Canada and in ten U.S. states.

My name is Peter Mohammed. I'm the president of the Vegetation Management Association of B.C. I've been on the association for 11 years. I'm also the co-founder and owner — part owner right now; I'm hoping to retire soon — of a vegetation management service provider in Prince George, B.C., Spectrum Resource Group. We're an industrial vegetation management service provider, and I've been in the industry for over 30 years.

In front of you right now you have a combined experience level of something like 80 years of vegetation management in the province.

We're concerned that "cosmetic use" is an undefined term. I think you've heard this before. This debate we're engaged in is ultimately not about spraying dandelions on people's lawns. It's about the stigmatization of herbicides. We're concerned about the impacts that a potential ban to industrial users may have. I'll repeat that. Our reason for being here today is that we are concerned about the downstream, down-the-road impacts that any type of ban will have on industrial users.

The IVMA is an organization of professionals dedicated to the responsible practice of all aspects of vegetation management. Our members employ professionals of all kinds — professional biologists, professional foresters, professional agrologists, even professional engineers — and technicians and tradespeople, all of whom understand the meaning of true integrated pest management and the impacts and principles and benefits as they apply on the ground.

We also have in the audience here some of our members who came to give us moral support and show support for our cause, the likes of the Council of Forest Industries, the general manager of the Council of Forest Industries — I won't go through the names, because we don't have the time — several senior foresters from Canfor, from West Fraser and also senior vegetation management strategists and specialists from B.C. Hydro. So we're here representing our industry, and we do represent the industry here today.

Integrated vegetation management — a little bit about this — involves selecting and integrating vegetation treatments to most effectively target specific plant species while minimizing the impacts to human health and the environment. This is the true definition of integrated pest management, and you'll note that it does not insist on a reduction in herbicide use. We feel that any definition of integrated pest management that insists on a reduction in herbicide use is contradictory to what true IPM is about.

IPM is a real concept. It's really working in this province, and we're proud to have been part of introducing it and developing the principles of integrated pest management in the province. It helps us to better control our pests. It helps us to reduce overall environmental impacts, and it helps us to avoid unnecessary exposure of an increasingly more concerned public. We think the government needs to promote IPM in its message to
the public. We've been very progressive with legislation in B.C., and I think we should be proud of it.  

The relationship that the Integrated Vegetation Management Association of B.C. has with government is over two decades old. It goes back to the old Pesticide Control Act and regulation in the late '70s and early '80s. More recently, we've helped with the development of the Integrated Pest Management Act, the IPMA, and the Integrated Pest Management Regulation that accompanies that.

Very recently and ongoing we are working on the explanatory notes to that regulation, because it is a comprehensive regulation and, as such, is a bit technical and difficult to understand at times. So we're working with the government to try to develop what we're calling explanatory notes for use on the ground in the field.  
In addition to that, we have other things, projects that we work on with them as initiatives — notably, development of First Nation consultation guidelines with respect to vegetation management in the province.  
A little bit about public response to herbicide programs. The Integrated Pest Management Act provides for herbicide application in the province. When proponents want to do herbicide applications in the province, they must develop pest management plans. I think you guys all know that.  
Part of that development of the pest management plan involves a lot of consultation at a lot of levels with special interest groups: trappers, guide-outfitters, berry pickers, you name it. We believe this gives us a clear and accurate view. Due to our unique insight, we have a more accurate view of public opinion because of these extensive consultation efforts.  
Amongst the things we're finding in the consultation evidence is that most of the public is not well informed about pesticide regulation, the products, the treatment types or the impacts. Secondly, where the public is informed, they're generally not concerned about their use in the area.  
Seventy percent of the pest management plans in the province are produced by our members and are worked under by our members. Anecdotally, the experience that we have with consultation covers 70 percent of the province, and the evidence that we're finding is that generally the public is not concerned where they're informed and that generally the public is not very well informed. We know this flies in the face of some of the evidence that you're receiving otherwise.  
With that, I'll pass it over to Gwen to talk a little bit about some of the technical points.  

G. Shrimpton: Thank you, Peter.  
You've heard about carcinogenicity from some other previous presenters. We'd like to let you know that our members are also concerned about cancer. After all, we're the people who are actually out there applying these products.
I wanted to make a mention of a report that was commissioned by B.C. Hydro a number of years ago. It concluded that no herbicides used by B.C. Hydro, which are the same ones that are used by most industry in British Columbia, appear on any known, probable, possible or reasonably anticipated carcinogen list as published by either the International Agency for Research on Cancer or the U.S. Department of Health and Human Services national toxicology program.

This report was produced by Dr. Len Ritter. Len Ritter is the executive director of the Canadian centre for toxicology, and he's currently been appointed to the Ontario government's commission to review 2,4,5-T. We will make this report available to the committee.

The IVMA would like to caution the committee that eliminating herbicide use could have serious consequences for public health, for the safety of industrial operations, for the prevention of wildfires and for the viability of industries that are important to B.C.'s economy.

We're concerned that herbicides may potentially also be banned for our use, and there's some evidence of that. Currently in Ontario there are some communities, such as the municipality of Coleman, that are using cosmetic bans as leverage to stop herbicide application on rights-of-way that are adjacent to the municipality. We're concerned about this potentially spreading to us.

I wanted to go over the importance of vegetation management to our industry here in British Columbia. The forest industry must control competing vegetation on planting sites to establish crop trees and maintain biodiversity to ensure our future timber supply as required by the province.

You've already heard from the Invasive Plant Council about the importance of controlling invasive plants and noxious weeds. I wanted to concentrate a little bit on vegetation control at industrial sites.

At industrial sites weeds must be controlled to provide access and visibility for inspection and maintenance; to reduce the potential for worker injuries, such as slipping and tripping; and to ensure the proper functioning of equipment and infrastructure. You simply can't maintain a facility if you've got trees and shrubs growing up through your equipment.

We've also produced a report, which we've passed out to you today, on the importance of vegetation management in British Columbia. I wanted to go into a little more detail on some of the sectors.

In the railway sector weeds are controlled to prevent derailment. In substations, which is what I'm familiar with, weeds must be controlled to prevent electrocution of workers. There's a gravel insulating layer above the ground grid in substations. If weeds impact that layer, workers in the facility could be fatally electrocuted, so it's a real concern for us.
Power lines need to control trees to prevent outages. Gas pipelines control vegetation to detect leaks. Gas facilities control weeds to prevent fires. Finally, they control vegetation on highways to improve visibility and also to reduce animal collisions.

Why do we use herbicides in our programs? There are two major reasons. The first one is that herbicides, to date, are the only effective tool that we have to keep industrial sites in a weed-free condition. We've tried hand-pulling. We've tried cutting, steaming, weeder geese — all kinds of other methods. To date, this is the only tool that we can rely on to really maintain these facilities in the weed-free condition that's required.

The second important point is that deciduous trees, such as alder and maple, when you cut them or mow them, don't die. So over time, they'll resprout, and you get multiple coppices coming up from a single stem. This will create a dense stand of trees over several cycles.

There are several problems with these dense stands of deciduous trees. First off, they're not very good habitat for wildlife, and sometimes the stumps that are left can be hazardous to wildlife or cattle. They can actually trip or cut themselves.

This is a very important point. Each time you cut these deciduous trees, you leave more and more debris on the ground. Over time this builds up, and it can become a significant fire hazard. Right now, under the Wildfire Act, we're required to keep our facilities in a condition that will prevent the spread of wildfires.

Believe it or not, there are some advantages of using herbicides over other methods. With herbicides, you can selectively treat the base of a stem and leave birds' nests undamaged, whereas if you mow or cut the tree down, you'll obviously damage the nest. Mowing machines, large machines, can cause erosion and rutting. They're also non-selective, so they remove beneficial vegetation.

Finally, when you don't control trees with herbicides, you have to keep returning to the site, so there are more frequent interventions. With a herbicide, you can convert it, and you can reduce the cost of your vegetation program over time.

Finally, we know from experience that there are less worker injuries with backpack applications than there are with crews that are using chainsaws for cutting.

There are many factors that reduce the impact of herbicide use. I'm just going to go over a few of these. Herbicides in our industrial sector are generally applied in fenced compounds or, if they're not, signs are posted in the treatment areas so that the public can avoid entering these treated sites.

Bodies of water are identified and flagged, and pesticide-free zones are established to prevent movement of these products into the water. There are also further restrictions on treating when it's windy or raining. So this prevents the movement of herbicides off the treatment site.

Finally, each year before we treat, the Ministry of Environment is notified of the areas that we plan to treat, and we must keep detailed records of all the herbicide applications we
D. Spata: Thank you, Gwen. I've just got a few more slides to close out our presentation here.

Why does the IVMA care about a ban on the cosmetic use of pesticides? As Peter mentioned earlier, we're concerned that this cosmetic use is an undefined term, and we're concerned that it's being used to disguise an agenda to stigmatize all pesticide use.

As well, we're concerned…. When there is a confusion between what's happening at the federal level, the provincial and municipal level, it's already having an impact on our sector.

For example, when you have products that can't be used around the home and garden and those same people come to work and we are using those products to keep their workplace safe, there's a huge disconnect. It requires a lot of communication, a lot of exchanges. At times it's difficult to resolve it adequately when you have two different government bodies saying completely different things.

As well, we're starting to see indications in our sectors of this being used as an informal bargaining issue between union and management, that this is being exploited — the fact that there is a discrepancy between federal law and what's happening at regional levels.

As well, we see this in many places, particularly in smaller towns, where the industrial sector makes up a large footprint in an urban area, like a railroad yard, for example. That's a large area in the heart of an urban centre, and we're continuing to use these products for legitimate safety reasons. Yet the municipality and local homeowners are not allowed to use these products.

Again, this requires a lot of communication and a lot of education, and there is some acrimony in general — "Why is this allowed on one side of the fence and not on the other?" — for a variety of reasons.

A ban on cosmetic use. Our concern is that the proponents of a cosmetic ban — that this will eventually spread to industrial use. Some of these proponents have made it quite clear that a cosmetic ban is simply a first step in a longer process.

Impacts of a banned industry. I'll just highlight a few points for you: difficult consultation on our pest management plans, unsubstantiated concerns over herbicide use, spread of invasive plants to industrial sites and discouraging innovation for new herbicides.

Let me elaborate. As mentioned earlier, our members do extensive consultation when they are developing their pest management plans. Again, this discrepancy between what's happening at the federal level, where these products are approved for safe use, and then
when we have either a municipal or, potentially, a provincial ban saying that these products are not safe or implying that they're not safe, just adds an additional layer or effort on our part, a download on our sector, to try to deal with this discrepancy. The Ministry of Environment is understaffed to deal with these issues, so it basically falls on our industrial sector to try to bridge this divide.

As well, we're worried about the spread of…. We're already seeing evidence that when some sectors are not controlling their invasive plants, the industrial sector is now the net recipient of the problem. So when somebody's not dealing with their issue on their side of the fence because they're restricted in some manner, we end up being a recipient of some pretty significant infestations.

As well, it's a little-known fact, but there's a lot of innovation going on in the crop science sector. A lot of the herbicides that are coming on the market today are less persistent, less mobile, more rainfast. They have all of the attributes that we expect in the general public — where innovation should be taking us. And again, if we continue to close the door on sectors where these products can be responsibly used, I think we'll expect that eventually, one day, the manufacturer will say, "It's not worth our investment," which is usually quite significant in new research.

Impacts of a ban to industry. We're already very heavily regulated in the province of B.C. Having a cosmetic ban or something of that nature is just going to add, again, more administrative burden, more burden on our communications personnel. We already do an extensive amount of interface with the public and local government. As well, we're concerned that this is not just going to be a cost to industry, but there's going to be a cost to government as well. If there's a cosmetic ban or further restrictions, someone's going to have to enforce it or provide educational materials or both, and that's something that has to be considered.

If the balance is tipped and biased towards more manual interventions with equipment like chainsaws, we already have plenty of data to suggest that there will be more worker injuries. It's just simply a fact.

As well, based on what's happening in some other jurisdictions, we're starting to see some potential negatives arising from these cosmetic bans, and this is a concern.

Our membership has…. Though we don't believe a cosmetic ban is needed, we have provided some recommendations to the committee for your consideration.

We think the consequences of the ban in Ontario are just being felt, and we would recommend at minimum a go-slow approach to wait and see how things shape up in Ontario. That's one of our recommendations.

You know, I operate in multiple jurisdictions, as Peter mentioned earlier, across Canada in six provinces and a good chunk of the United States, and I can tell you that there is no other jurisdiction that has comprehensive, contemporary, effective legislation already in place like we have in B.C. with the IPM Act and Regulation. I think that should be our cornerstone of any decision-making that we make in future. We have a great tool already here, and we should use it.
Thank you, and we're ready for your questions.

**B. Bennett (Chair):** Thanks very much, folks.
Committee members — questions?

**S. Fraser:** Thanks for the presentation. It had a lot of material.
I guess just a couple of things. You've touched on why you're here, although it's almost a second-hand issue. The issue we're dealing with, cosmetic pesticides…. People have criticized that term already, as you have, but it's dealing largely with urban use — lawns, aesthetic reasons. I understand that might cause you some communication problems, so it's nice to know your perspective on that.

There are a number of questions, but I won't have time for all of them. Gwen, you suggested earlier on…. You were talking about no links to cancer on the products. But the whole thrust of, I guess, the original provincial legislation brought in, in 2003 from Quebec…. They targeted

20 active ingredients that have been classified as carcinogens by at least…. There were about four or five agencies that they cited that are all respected, between Canada and the United States.

Those were the targets of the pesticides that were banned. There were about 200 products that included those chemicals. So there are, certainly, links to cancer — certainly according to the Quebec government and others that have done the banning on this. That's one issue.

Then, just following up on that, you mentioned about pipelines. There's a lot of controversy right now in the province about increasing pipeline traffic throughout the province. Some of them we're talking about right from the Alberta border to the ocean, so we're talking about a fairly big swathe of 1,200 kilometres or more. Will those all, then, be targeted with herbicides to control the weeds along the pipelines?

**G. Shrimpton:** I don't work for a pipeline company, so I can't really speak for them, but I do know that…. You mentioned you had someone from FortisBC here yesterday. They do use herbicides in their program when it is the most effective, the best tool in that particular situation. They will make the decision to use herbicides if required. So it is a tool that that industry does need to maintain.

**S. Fraser:** And then, further, to the first question around the…. 
P. Mohammed: Could I just add something to that?

S. Fraser: Oh, sure. Yeah.

P. Mohammed: It's not the tool of first resort. The process of IPM specifies that you look at all of the tools you have in your toolbox and pick the right one. So it's not as though the first choice on that entire right-of-way is going to be to go to herbicides. Only where they can't, then they'll switch to something else. They use IPM principles to arrive at the best tool for the site at the time.

G. Shrimpton: So specifically, on your question on cancer, I understand that there are a lot of concerns about pesticides and cancer. That report that I cited was specifically for the herbicide products that we use. So I think there are about 15 different herbicide products that we asked Len Ritter to review, and those are the results of his review, specifically to the products that our industry uses.

S. Fraser: All right, then. Just to finish that off, if I may, Chair. We are tasked to adjudicate, potentially, a cosmetic pesticide ban, like other provinces have done. Those products — there were 200-some products, certainly, identified in Quebec that were under that…. That was the number that they ended up having issue with because of the 20 chemical products that they contained. The report that you're going to be able to provide us, while important, will not cover all of those.

G. Shrimpton: No.

D. Spata: We should mention that many of the same products that are used in our sector and many of those on that list in the B.C. Hydro report are also used in the landscaping industry, so there is the parallel with the cosmetic side.

B. Bennett (Chair): Folks, it doesn't matter which one of you answers this, or all three of you can answer it if you want to — or none of you, if you prefer. I live on 2½ acres outside of Cranbrook. The house is about three years old.

P. Mohammed: There's no free advice here, sir.

B. Bennett (Chair): Well, then I withdraw my question.

The house is about three years old, so recent construction and recent disturbance of the land. There's obviously a road. It's a paved road. There are ditches on either side. There are telephone poles. There is electricity, power. No Shaw cable, but there is gas. So you have that type of disruption to the ground on 2½ acres. The house. I've got some domestic-type gardens inside a fence, because if you don't put a fence up, the deer will eat everything.
I'm not on a little tiny postage-stamp-sized lot in Victoria or Vancouver or Kelowna or Prince George or anywhere. It seems to be bigger than what my wife and I can deal with, you know, by pulling. We've got toadflax and knapweed and you name it. Lots of it comes from the rights-of-way. Some of it may come back to the rights-of-way — I don't know — but in any case, it's there.

One of you indicated — it might have been you, Peter — that you question whether there are effective alternatives to the herbicides for the treatment of invasive species and so forth. Can you elaborate on that? The committee has heard from a number of people — including the last presenters, actually — that there are lots of alternatives, that we don't really need to use chemical pesticides.

**P. Mohammed:** Okay, can I paraphrase your question for a minute here?

**B. Bennett (Chair):** Please do.

**B. Bennett (Chair):** No, not the only. I understand how the integrated pest management process works. Are there effective alternatives? Could we ban the use of Killex and Roundup and so forth, to use the brand names, in town, in regional districts, and just have individuals…? If we just did it at a consumer level, if we just had consumers not be able to use that product and maybe not hire somebody to use that product, are there alternatives out there that would do the same, have the same impact?

**P. Mohammed:** I'll answer it by saying that it depends on the plants you're attacking. Sometimes there are alternatives, and we use them. For example, in our invasive plant control work with Spectrum Resource Group, only about 15 percent of the work we do is chemical-based. The rest of it is mechanical.

You're not going to pull out a backpack and go spraying when there are two knapweed plants that you're going to control. You just pull them out of the ground. But when you're dealing with fields upon fields of, say, orange hawkweed, something of that nature that reproduces through several means, you really don't have an option anymore. When that starts to take over, you need some sort of herbicide intervention, and I think that's what we were leading to here.
You know, you go through the IPM process, you take into account the plant species and its reproductive mechanisms, and it may lead you down that road to where you don't have another option. Did that answer your question?

D. Spata: I think I can also just jump on that a little bit. In the area where you live there's a group composed of ranchers, environmental groups.…

B. Bennett (Chair): I know who they are.

D. Spata: Even though there are discrepancies in the group in terms of how to deal with the cosmetic side, when it comes to invasive plant control, they're all on the same side. They've all pretty much said that for most noxious weeds, invasive plants, you need herbicide control. Kootenay is one of the big areas for this where we've got very significant infestations, and even the most hardened groups that are opposed to herbicide have acknowledged that you need herbicides in the toolbox to deal with this issue.

P. Mohammed: That reminds me. I also sit on the board of the Invasive Plant Council. I know you've heard from Gail Wallin, and they reiterated that point as well: we need that tool in the toolbox.

B. Stewart: I just wanted to go to Dave's comment. I think you've mentioned about the go-slow approach, with Ontario looking at it. As industrial or commercial users, what are you seeing in Ontario that are early signs of concerns, if any?

D. Spata: Directly from my experience, there are several things, and it's just starting to creep up. For example, as I mentioned earlier, you can have a small or a medium-sized community like Sudbury or Thunder Bay, where we have to actively do our vegetation management like we always have, and now we're getting significant public backlash because people are misunderstanding. They think that this was a total ban. And how come they…? You know, they can't use this product on their side of the fence, yet we can, and they walk their dog along a rail yard, and we're spraying right up to the fence, and so forth.

It's not just trivial, like the odd phone call. I mean, we get flooded with phone calls. We have a 1-800 number for all of North America, and we've got people full-time in Calgary just taking phone calls from people in small-town Ontario saying, "What's going on here?" — right? That's one aspect.

Then, on the union side, the heads of all the unions, mostly based in Ontario, are saying, "Well, we've got a ban in Ontario," and when I have a dispute in Vancouver about whether we're doing something correctly or not, they're saying: "Well, it's already banned in Ontario. This is clearly unsafe. You know, you're exposing our workers to unsafe products."
So it's becoming a major issue. Those are just two. I mean, I could go on.

Gwen indicated that we're seeing some municipalities using this as leverage to stop not just work within the municipality but work on rights-of-way — that have a legitimate safety reason for doing this work. So it's creeping. That's the problem. It's not like all of a sudden things have changed overnight, but we're just seeing a groundswell of problems creeping up as this legislation has had more time.

B. Stewart: Can I just finish with one follow-on? The other provinces that have implemented some regulations on the use of cosmetic pesticides — how are those jurisdictions faring? Are there any working better than others in terms of these issues?

D. Spata: You know, I think it's been a patchwork. For example, Quebec went after the active ingredients, but now they've actually been forced to sort of rescind some of their comments because they weren't factual. So it's a mixed bag.

I think you probably had a presentation the other day from CropLife. They're saying, basically, that depending on how the legislation was enacted, there is more cross-border smuggling. Now Vermont and New Hampshire are the No. 1 and No. 2 users of home and garden pesticides in the United States. Well, that's all people from Quebec trying to circumvent the rules, essentially — right?

So I can't really say. I can't point to an example where it's worked. Certainly, our parallel organization in Ontario, the Ontario Vegetation Management Association…. It's certainly not working there. The Ontario approach has been a very badly thought-out approach. That one for sure. That's all I can really say.

B. Bennett (Chair): I have to end it there. Thank you very much, all three of you, for your presentation. We appreciate your time and your interest and your assistance.

Committee members, our next witness, corporately anyway, is the Canadian Cancer Society, B.C. and Yukon — Barbara Kaminsky and Kathryn Seely.

Hello. How are you ladies doing today?

B. Kaminsky: We're great.

B. Bennett (Chair): Good. Whenever I meet with you…. I've had such an exposure to cancer in my own personal life. I lost my mother, my father, my two paternal grandparents, and my eldest brother was just diagnosed with cancer, so I certainly appreciate the work that you folks in your organization do.

That was my time. That wasn't your time. We'll start you out and give you 30 minutes, and if you leave some time at the end, we'll ask questions. I'll let you know if you're getting
close to 30 minutes.

**B. Kaminsky:** I'm sorry for the personal circumstances your family has faced. Unfortunately, it's an all too common experience that families have, and that's one of the reasons that we're delighted to be part of these presentations today.

We'll just give you a little outline as to what we plan to cover over the next several minutes. I'll talk a little bit about our background in the Canadian Cancer Society. Probably, everybody has heard of us, but sometimes it's useful to talk in a little more detail about what we actually do.

Clearly, why we have an interest in pesticides and cancer — and what the evidence suggests and is quite clear on — why we believe pesticide legislation by the British Columbia government is important and urgent; our support for the legislation, not only in terms of our community but also British Columbians more generally; and the position we would like you to embrace.

You have the power at the B.C. level to be able to not only ban the sale but the use in all jurisdictions and then end the patchwork that we currently have throughout the province. I actually think you're in a wonderful place in time to be able to make a positive difference, and I hope that you take advantage of that.

Who are we in the CCS? Our mission is the eradication of cancer and the enhancement of the quality of life of people living with cancer. We fight against all types of cancers. Our three pillars are prevention, support and research. Frankly, research is the evidence base that we use for all of our initiatives, whether it's in prevention or support programs.

People know that we're nationally respected, and our positions on cancer are based on very good evidence that's generated often through our national office and then as a consistent position across the country. We have access to a wide variety of experts, not only within Canada but nationwide. We're also locally connected. We have over 17,000 volunteers in British Columbia, people right in every community who I think represent a very good cross-section of the average British Columbian and who have evidenced their support of the position that we're taking.

I was thinking a little bit about a previous presentation and thinking: "Well, you know, between Kathryn and me, can we compete with 80 years of personal experience in this industry?" Well, we're not quite that old, to have logged 80 years between the two of us, but Kathryn's got a great background. She's both a nurse and a lawyer by training. I've got a couple of master's degrees from UBC. I'm an adjunct professor at the University of British Columbia in the faculty of medicine. But it's not really about individuals. It's about the strength of the Canadian Cancer Society and the credibility that we enjoy throughout the country.

Why is it important that we focus on aspects around cancer prevention? About half of all cancers could be prevented. I don't know if everyone actually knows that on the
committee, because often, when we share that statistic with people, it's quite startling. So imagine the difference we could make — not only in terms of human suffering, but in the impact on the health care system — if we could cut the rates of cancer in half.

Even if we could cure every single cancer that exists and not have any side effects as a result of those treatments, we know that people would prefer not to get cancer at the outset. So probably prevention is our idea of the ultimate cure.

I would suggest that in the Canadian Cancer Society working on legislation around prevention is where we really excel. Because we get relatively little money from government, it gives us an opportunity to speak out, to share evidence in a rather public fashion and to help leaders in government do the right thing. So we're here to help.

When we look at cosmetic pesticides, let's just be clear on what it is we mean. Certainly, it's the unnecessary use of chemical pesticides, and it includes lawns, gardens

and non-agricultural landscapes. Again, when I reflect on the previous presentation that occurred, let's be clear about the limits of where we want to go on this. We're not in any way suggesting that our position be applied to things like agricultural applications, forestry applications. When I saw examples around railways, oil and gas industry, we're not suggesting those be covered, so let's just sort of take that off the table.

We have no disguised agenda. That was another phrase I picked up on. We are very transparent in the Canadian Cancer Society. What you see is what you get.

We believe we're presenting a balanced approach. As you sift through the various testimony you receive, we believe that at the end of the sifting and sorting you'll find that our position is very, very balanced and evidence-based.

We saw your working definition of cosmetic pesticides, and we agree. We couldn't agree more. We think you selected the right slice of this to look at, and we would like to support you in making this work effectively.

Now, people will talk about the evidence when it comes to pesticides and cancer. Previously, with the Ministry of Environment, we presented a fairly high stack of studies, but basically, over a hundred studies from very credible sources have been looked at in terms of weighing the evidence. You see before you the types of cancers that have been linked to cosmetic pesticide use and other types of uses as well.

We are particularly concerned about kids, because their bodies are still growing. When they're exposed to carcinogens, the impact on them would be even more serious than it would be for the average adult. When you think about a child and cancer….

I don't know how many of you have personal family stories in this regard. I have a nephew who was diagnosed with leukemia when he was five years of age. I'm happy to tell you that today he's 38 years old — happy, healthy. But think of the fact, if he would have died at age five, of how many years of life he would have been denied. Average life expectancy is around 80 years of age in B.C., so he would have lost 75 years. It's not just counting the numbers of people; it's counting the impact in terms of potential years of life
lost. Clearly, we're concerned about kids.

How much evidence is going to be sufficient to sway decision-makers in government with respect to taking action on this issue? You could ask that the ultimate randomized clinical trials be conducted, where there's double-blind randomization done. You could say: "Okay, John Slater will be exposed to pesticides, and Bill Bennett will not."

**B. Bennett (Chair):** Do you mind?

**J. Slater:** It's too late.

**B. Kaminsky:** More importantly, you won't know if you are or not, because it's double-blind.

I'm using this to make a point. It would be absolutely inappropriate and impossible for us to have that kind of evidence. It would be ethically and morally wrong. So for those that say we have to wait until we get more evidence — well, that kind of evidence just is not going to happen. But it makes a pretty good argument.

Over to my colleague Kathryn.

**K. Seely:** The Canadian Cancer Society has weighed the growing body of evidence that's suggestive and links various chemicals and pesticides to various cancers that Barb mentioned. We have weighed the pros and cons, and we say that when it comes to the cosmetic use of pesticides — those pesticides on lawns and gardens and non-agricultural landscaping — there's no health benefit to their use. They're unnecessary. Children are more vulnerable.

So we're asking the B.C. government to prohibit their sale and use on lawns, gardens and non-agricultural landscaping, with exemptions to protect public health and safety. We'd like legislation to include a white list, and we would like legislation to still allow municipalities to adopt further restrictions in their bylaws.

Integrated pest management, we say, is not the answer. Integrated pest management, or IPM, as you've heard from many presenters, sounds reasonable in theory, but in practice it isn't working, as its principles are vague and open to interpretation.

In B.C.'s own Integrated Pest Management Act it doesn't require explicitly safer alternatives to be used before pesticides. It still relies on pesticides, and it doesn't eliminate cosmetic pesticide use, so as it concerns pesticide use on lawns, gardens and non-agricultural landscaping, we say it's not particularly health-promoting or protective of children.

We also have evidence from Ottawa and Quebec that when IPM programs are in place, pesticide use has not decreased. In fact, there's a study out of Calgary that shows it actually
had increased. We can provide those references to the committee later. So when it comes to pesticide use on lawns and gardens and green spaces, we say we don't need to use that last tool in the tool box.

Health Canada is not the full answer. We've heard that they study pesticides and come up with a determination of whether it's an acceptable risk, but only when used according to label directions. You've heard evidence before you that it is sometimes hard to access that label. It is often hard to read or understand the label, especially if English is your second language.

It's only a dose calculation, and it only studies active ingredients, not the inert ingredients. It doesn't look at chemicals in combination, nor does it look at cumulative exposures. Health Canada doesn't delineate the difference between domestic use and agricultural use, so it

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doesn't look at unnecessary risk, which is what we say the use of cosmetic pesticides is.

In general, we would also submit that Health Canada is slow to change and not immune from either political or industry interference. We would point to examples in the past, such as tobacco; lead; radon; asbestos; and, more recently, vitamin and sugar-sweetened beverages and vitamin water.

Why would we like a cosmetic pesticide ban? We've talked about the adverse health impacts. You've heard about the adverse environmental impacts. We know there are precedents. We have three provinces with good legislation: Ontario, Quebec and Nova Scotia.

We also have the model legislation that we commissioned the UVic Environmental Law Centre to prepare for us. They did that in consultation with us. You received a presentation from them this morning and, I believe, a copy of the legislation.

B.C. municipalities can not do it all. They can't ban the sale, although 39 of them have prohibited the use on public lands and private lawns and gardens.

We believe that all British Columbia children should be protected from these unnecessary exposures.

There is growing support. You've heard from the UBCM. Miss Gue of the David Suzuki Foundation today, I believe, showed you the joint statement of 20 provincial health and environmental organizations. There are also another 20 regional grass-roots coalitions.

We commissioned Innovative Research Group last year to conduct a public opinion poll. I brought some copies with me, but we could also send them to the committee if they're interested.

[1415]

The poll was interesting, in that it showed that over 70 percent of British Columbians
support a cosmetic pesticide ban; 76 percent were aware of the links between pesticides and cancer. The support showed no rural-urban divide, nor did it show a divide between NDP voters and Liberal voters, and 75 percent of the respondents agreed that they would be willing to try alternatives if provided the tools and information.

You're aware of this further support from the previous consultation. We still have close to 6,000 fans on Pesticide Free B.C. Facebook. Then you received evidence from the Ministry of Environment staff originally, early on in your committee's deliberations, about the responses, the petitions and the letters that continue to be sent to Environment Minister Terry Lake and Premier Christy Clark.

We know that legislation is good for business. Viable alternatives exist. Businesses are shifting to and selling more non-toxic alternatives. Home Depot, RONA and Loblaws have phased them out. Studies show that after the pesticide bylaw came into place in Halifax and Toronto not only did pesticide use decrease but pesticide companies increased in number and number of employees. Pesticide bans work. You heard the statistics this morning from Miss Gue.

The one caveat here is that you need both the carrot and the stick. So the pesticide legislation would be the stick, but the carrot is the public education. The studies also show that if you combine legislation with public education, you get more compliance. In terms of pesticides it was a 51 to 90 percent reduction in use. Whereas if you didn't have the public education coupled with the legislation, it wasn't as much use.

These are two of my favourite quotes. "The grass is still growing in Hudson." That was not this fellow here; that's Joe Trasolini. That was from Mayor Mike Elliott for the first pesticide bylaw in Canada in Hudson, Quebec. And in ten years — and I really believe this — we'll wonder what all the fuss was about. We said that about smoking today and smoke-free places. This was Mayor Mike Bradley in Sarnia.

B. Kaminsky: Okay. So some of these arguments are fairly predictable, and in fact, for those of us that have worked on other progressive public health policies, you can just transfer the noun on another file and the arguments are the same.

When I think back to what was going on in terms of the tobacco industry…. Anybody that differed from their point of view, it was said that they had junk science, not good evidence. So okay, we've heard that before on this particular issue as well.

Always the economic concerns about: "It will ruin business." We can see from applications of this type of legislation in other jurisdictions that the industry does just fine, thank you. But the point is that they do have to change their practices and some of their products. But in some cases they actually do even better than what they had done previously.

The other point around being tested by Health Canada. Well, Health Canada's record about being progressive in terms of change is not necessarily stellar, nor is it one that you would want to always follow. Nanny states — you hear that periodically, and that's more of an ideological statement than anything else, and I don't think you can really argue that on facts.
I guess the other one, in light of what we heard earlier, is: "Go slow." That would be another suggestion that's raised, and that certainly was also true with the tobacco industry. "We've got to be careful. We need more evidence. Let's study this a little longer."

Well, I think that you actually have this great opportunity to have weighed all the information and to make the right decision now. I don't think you need to wait any more. In fact, it's been a bit embarrassing in British Columbia that we've been studying this issue for several years, and we've got no legislation yet. So we think the time has more than come for B.C. to take strong action.

Why do we think that? Kathryn just told you about the healthy public support. In some ways the public is ahead of its politicians.

The other aspect around this is that we know that society as a whole is changing its norms so that what might not have been palatable decades ago — people's attitudes have shifted. If I can think, just as a closer example to what we're talking about now.... It used to be, years ago, that if you had a lawn and it was summertime, you felt compelled to keep watering that lawn to make sure not a speck of brown appeared — right? It had to be a beautifully lush green lawn. Well, water restrictions came into being. People just got a new attitude about what constitutes a yard. So now it's okay to have a brown lawn all summer long.

The nice thing about British Columbia is that around this time of year rain comes, and suddenly it's green again. So the same societal attitudes around cosmetic pesticides and bans I think have shifted over the years.

We just leave you with this one final thought about what legacy you would like to leave your kids and your grandkids. You do have an opportunity to make a positive change. Wouldn't it be a shame if you didn't take advantage of it?

That's a rhetorical question.

We're done.

**B. Bennett (Chair):** You're done? Okay. Thank you very much. We do have some time for questions.

**S. Fraser:** Thank you very much for the presentation. I'm growing a moustache too.

**K. Seely:** Movember.

**S. Fraser:** I guess a couple of things. The position that you're taking certainly has been
affirmed by some of the medical evidence that we've seen in presentations yesterday and other times too.

The other side of that — and you've touched on some of the other side of that — is there has been suggestion that pesticides are getting a bad rap, that if we do a ban on cosmetic pesticides it might lead to pressure to reduce pesticides in other parts of the environment. I don't know that that's necessarily a bad thing. It often comes back to the economics of it.

You work with people that get cancer. You've got a propensity of evidence that leads to linking that to exposure to pesticides — and other deleterious substances, I'm sure. What's the cost of that? We've heard that 50 percent of cancers can be prevented by reducing exposures. What kind of numbers are we talking about? Do you have any statistics on how many we're talking about? How many people in Canada, potentially, get cancer from exposure that could be mitigated, at least in part, by such bans — in your opinion?

**B. Kaminsky:** I'm not sure that we have good data that we can cite on that point. Our suggestion would be that if you know that there are noxious substances that are at least probable carcinogens and if you have the power to remove exposures to those products, why would you not do that?

We were very straightforward when we said: "This is not the beginning of this hidden agenda that has been alleged." We're very clear on the limits of what our position represents.

The point around agricultural use, forestry, etc. There are good economic and social reasons to continue using substances that control weeds. We need food security for our public. We need a healthy forest industry, etc. But when it comes to taking some weeds out of your front lawn or your garden — really, let's put this in perspective.

I think those that would characterize our position as sort of the bleeding edge or radical…. I think they're distorting our point of view.

**B. Bennett (Chair):** I'll ask a question and give my colleagues a chance to think about what they want to ask.

I certainly don't question the sincerity of your position on this. What I'm curious about are your comments — and you just repeated them — about not asking for any sort of restriction on the use of pesticides outside of whatever "cosmetic" means. It is a fairly subjective term, and it's hard to know exactly how big or small that might be.

If we're just talking about dandelions on a residential yard, that would be one thing. But are we talking about my house — 2½ acres in the country with invasive plants there? Do I get to use this stuff? Do I hire somebody else to use it? Do you ban it entirely?

Then there's the forest industry. You can just keep expanding out into agriculture until you take a look at the whole province.

What I think I heard — and please, do correct me if I don't have this correct — was that you're asking for some restrictions on a much smaller scale. You're not including
agriculture. You're not including the forest industry. You're not including rights-of-way for gas lines and transmission lines and so forth.

On the other hand, you have said that these substances cause cancer. Given that the evidence we have, so far, on the committee is that the use by consumers is actually relatively minimal…. They don't apply it often, and it's applied in very, very low dosages. If this stuff causes cancer, wouldn't we want to ban it completely everywhere?

B. Kaminsky: If we had specific evidence on specific uses that then could show that the benefits of the use of these products were no longer outweighing any potential difficulties, then I think that would be worth looking at.

We recognize that you need some ways of controlling weeds when it comes to agriculture, when it comes to certain industries, etc. So truly, we have a very confined definition of what needs to be looked at.

We believe that you don't need to wait for a whole mountain of evidence. There's enough to exercise action for things that are purely voluntary, purely cosmetic. Why would you not do it? If there are alternatives and it's not necessary and the public attitudes are supportive of these changes, it doesn't seem logical that you would persist.

J. Slater: Thank you for your presentation. You may have heard this earlier today, but in rural British Columbia there are a lot of interface areas between orchards that use fairly toxic chemicals to control bugs, etc., but it's that interface area where somebody's got two cherry trees in their backyard. They're not going to be able to use anything but maybe some Safer soap or something like that to take care of a 12-foot cherry tree, when the orchard across the street is getting inundated and has to spray way too often in the middle of picking season, where they can't.

How do you envision that working, with the rules that you guys are trying to set out?

K. Seely: Good question. We would ask, as part of the pesticide legislation, that it include home fruits and gardens. It would be virtually unworkable and unenforceable to tell a homeowner: "You can't spray your lawn, but yet you can spray your fruit tree." Children would still be exposed. So we do ask for the fruit trees to be included.

The answer to that, we would say, is…. We do a combination of public education. So we say to the homeowner: "You can use the natural products that you just mentioned, but you can also remove your fruit." That's what was very successful in the Okanagan, I understand.

J. Slater: SIR, yeah.
K. Seely: SIR. Then if you do that with the homeowner and the orchard still has all the tools in their tool box, you shouldn't have a problem.

J. Slater: Okay. Of course, the other issue would be: how do you work on rails and trails — right? I mean, there are a lot of pathways on old railbeds that aren't controlled anymore by the railways, and they're getting poison ivy and all kinds of invasive weeds. How do you deal with poison ivy? Treating a kid for poison ivy is a heck of a lot harder on that body than having a little bit of spray for poison ivy on those paths.

K. Seely: Public health and safety concerns are something in the definition of…. We said that cosmetic use of pesticides did not include agriculture, forestry — Barbara mentioned gas and other things — but also health and public safety. So when it comes to things like poison ivy, that would be exempt. It is exempt in Ontario, actually.

J. Slater: Oh, it is, eh? Okay, thank you.

B. Kaminsky: Yeah, there are good precedents in other jurisdictions — Quebec, etc. Again, we had presented, to the ministry, model legislation for its consideration.

R. Fleming (Deputy Chair): Thank you, Barbara and Kathryn, for your presentation this afternoon. The previous presenters, I think, make their case, really, about industrial herbicides. So I think you've done a good job of focusing us back on residential cosmetic pesticides.

I know that your society is particularly concerned with exposures of infants, toddlers, pregnant women — everyone, but those groups are at most risk from toxic exposures.

My kids are just old enough that I can remember a post- and a prewithdrawal period of BPA plastic from the shelves. I don't know if that was a campaign that's part of your secret agenda as well. [Laughter.] But I think that these things do come up. The testing is very difficult to afford and to prove, and generally, there isn't a lot of assistance for that type of thing.

I wanted to pick up on a point that another presenter made, just to get your comments on it. You had one slide here that was about the possibilities for legislation being good for business.

I think your points are well taken about a cultural change around the expectation of what a lawn looks like. In fact, in my community if you have a suspiciously green lawn in August, you're probably not very popular and are suspected of breaking the watering restriction bylaws.

A gentleman from UBC botanical suggested to this committee that really, by failing to
ban cosmetic pesticides, we're probably holding back a significant amount of R and D and a market share for alternative products that are non-synthetic.

I'm just wondering if — I realize your mandate is quite broad, and this is probably just on the very edge of it — you have anything you can share from similar cancer societies, sister organizations in other provinces or other countries that have put bans in place, whether that has been seen.

**K. Seely:** We know that the number of organic or alternative offerings are increasing, not only in number of offerings but in sales. That was confirmed to me in an e-mail from the general manager of Home Depot a few years ago.

Also, I met Al Miller, councillor of Invermere, at UBCM a few weeks back. He told me he recently pulled the pesticides out of his Home Hardware. There are just so many available alternatives now that he's finding his business is doing better.

I'm also reminded that back in 2003, on the second day I worked at the Canadian Cancer Society, Barbara asked me if I could go to city of Vancouver and present, and we did. Councillor Peter Ladner at the time asked the industry: "If we remove your ability to use these products, what will you do?" "We'll just find other products," he said.

**B. Kaminsky:** That describes the orientation program in the Canadian Cancer Society. Kathryn was with us for one day.

**B. Bennett (Chair):** Last question goes to MLA Stewart.

**B. Stewart:** I just want to clarify the issues around kind of what John was speaking about in terms of backyard fruit trees and things like that. Is the Canadian Cancer Society's position to prohibit licensed applicators from actually treating those trees in backyards with necessary pesticides that are...?

It might be deemed cosmetic if you were a homeowner doing it, but I'm saying that if you're a responsible fruit tree owner and want to have it done by a licensed applicator, are you opposed to that?

**K. Seely:** Sorry, is that a commercial fruit tree grower?

**B. Stewart:** No. I'm talking about...  

**K. Seely:** It's a homeowner growing fruit trees?

**B. Stewart:** ...a homeowner. Yeah.
K. Seely: Because it would be virtually unworkable or unenforceable to tell a homeowner, "You can spray your fruit tree but not spray your lawn," our call for cosmetic pesticide legislation does include home gardens and fruit trees.

B. Kaminsky: Regardless of who applies it.

B. Stewart: Okay, so it doesn't matter whether it's a licensed applicator doing the lawn or the fruit trees.

K. Seely: No, and then that goes back to why no integrated pest management or licensed applicators using synthetic chemical pesticides on lawns and gardens. We say they're unnecessary. They potentially lead to needless exposure to children, and there are alternative offerings.

B. Stewart: I guess there's a question in my mind that as presented here…. One of the things that recently just emerged in the last couple of seasons is an insect called spotted wing drosophila. It's coming in from the United States. It's coming in to the Lower Mainland through your berry crops. It's coming into the Similkameen and Okanagan valleys. It's attacking soft fruits. Frankly, Agriculture Canada and the province of British Columbia are working on and very committed to trying to find some solutions.

Of course, they'd like to find a biological one if they could, but the situation is that there is really zero tolerance at the fruit level. Of course, hundreds of thousands of dollars of fruit have been dumped each season right now because of this pest. Anyway, it's a little bit akin to the SIR program. It doesn't work without the backyard intervention. The idea of taking the fruit off is practical if you've got a few trees, but if it's a larger amount, it becomes a bit unworkable. That's the reason I was asking that.

I guess the thrust, from what I'm seeing, is that the worker that's actually working with the same carcinogenic product, or potentially carcinogenic product, is fine to work with it, but in the case where it's in the backyard, where children or babies are exposed to it, your philosophy is that you think we should ban that.

B. Kaminsky: There is no redeeming social, health, economic value of doing it for cosmetic purposes in your own lawn and garden. It's not about food security. It's not about forestry, etc. Because there's no value, there's increasing evidence and there's public support to do this, it just seems the most reasonable course of action.

B. Bennett (Chair): Barb and Kathryn, thank you very much for your interest and your presentation. We appreciate it, and we may or may not be in touch, but you've provided us with lots of information. If you have additional information, as we go forward,
please be in touch with us.

**B. Kaminsky:** And for every concern, I'm sure that our colleagues in the other provinces…. In terms of the other jurisdictions that have put this legislation in place, I think those governments can give their perspectives.

**B. Bennett (Chair):** Committee members, we have one more witness, but we're going to take a really brief recess here. We have two more witnesses — sorry. I didn't mean to make anybody nervous. We're going to take a five-minute break here.

The committee recessed from 2:36 p.m. to 2:47 p.m.

[B. Bennett in the chair.]

**B. Bennett (Chair):** We have two witnesses left this afternoon, committee members. Most people have been in the room for a while, so I'm not going to go through the introductions again. You have 30 minutes to present. You can use all 30 minutes for a formal presentation, or you can leave some time at the end for questions. Your choice. I'll keep track of the clock, and if you get close to 30 minutes I'll let you know.

So go ahead and introduce yourselves and get started.

**J. Doherty:** My name is Jacquie Doherty. I am the president of the IPMA of Western Canada, and with me today is Paul Visentin. He's a director of our association. I'll just give you a little background. My husband and I own and have owned for the last 23 years a lawn care company in Kamloops, and Paul and his wife have a lawn care company in Cranbrook. So we'll proceed. Oh, just to mention quickly. I woke up yesterday morning with a very sore throat, so bear with me if I'm gulping back water.

Our association was established in 1983 as the Environmental Standards Association and over the years has evolved into the Integrated Environmental Plant Management Association of Western Canada. Our main focus is our annual educational conference held at the end of January in Kelowna. We represent professional certified pesticide applicators in B.C., Alberta, Saskatchewan and Manitoba.

Although we have members throughout western Canada, we are here today to represent our B.C. members and their clients, as they will be the ones affected by the recommendations of this committee. Why we're here today: to provide input to the committee regarding cosmetic pesticides and the impact a ban would have on our industry and also on B.C. landscapes.

Pesticides are not cosmetic. They are applied to help protect our landscapes from the damage caused by insects, weeds and disease. Insecticides, herbicides and fungicides are used very selectively and only when necessary to protect the health of our lawns, trees and
ornamentals in our urban landscapes.

First and foremost, pesticides are not used primarily for aesthetic reasons. They are tools that help to ensure a healthy landscape. The use of these products protects our landscapes as valuable ecologically important areas. Residential landscapes are tremendous economic assets as well as vital green spaces that enhance our community's beauty and overall healthy state.

Some of the benefits of a well-maintained landscape: a thick, healthy lawn prevents soil erosion; trees and lawns cool and clean the air we breathe; a lawn filters surface water and returns it back to the water table; healthy green spaces reduce noise pollution; a nicely landscaped yard adds value to our property — they say as much as 25 percent; and attractive landscapes are pleasing to the eye, and they make us feel good.

According to Dr. James D. Lu, medical health officer of Vancouver Coastal: "The aesthetics of urban landscapes has public health value. Appealing and well-kept neighbourhoods increase the public sense of safety and increase outdoor activities in neighbourhoods." Of course, that's what we're all striving for — safe, healthy communities.

On December 31, 2004, B.C. passed the Integrated Pest Management Act. B.C. was the first jurisdiction in North America to require the use of integrated pest management, or IPM, on all public and private land by commercial pesticide applicators. Because of B.C.'s forward thinking, we have the most modern and sustainable approach to managing pests in a way that minimizes economic, health and environmental risks.

IPM is a method of combining biological, cultural, physical and chemical tools to maintain landscapes. When it comes to pesticide safety, we believe you should rely on our federal regulatory system. Health Canada's PMRA and its 350 highly qualified scientists are the experts to be relied upon. We trust Health Canada and its label instructions for the safety of pesticides. We believe in a science-based approach to the registration and use of pesticides.

I know we've heard some comments about what's happening in Ontario. I wanted to touch on the Ontario cosmetic pesticide ban, which came into effect on April 22, 2009. This is a photo taken of the Queensway in Toronto on July 28, 2010. No, those are not ornamental plants. Those are actually weeds that are probably four to five feet high, growing along the roadway.

According to Cheryl Machan of the Professional Lawn Care Association of Ontario — and that's called PLCAO for short — the ban has had a devastating effect on the lawn care industry. Since the ban was enacted, half the lawn care companies have closed their doors. Companies that are left have lost 30 to 50 percent of their customers. Businesses servicing commercial properties have losses of 50 to 75 percent. They expect the one- and two-truck operations will disappear within the next year.

One company, for example, had six trucks running full-time, six days a week, and is now down to three trucks operating only on a part-time basis.
I also spoke with Steve Tschanz from Landscape Ontario. He said that this season alone gross revenues of companies are down an average of 30 percent. Profit margins have dropped to 5 to 10 percent from the original 25 to 30 percent, mostly due to the cost of the alternative products and the limited availability of those products. New products are costing approximately 20 times more than the traditional products used. Besides their exorbitant costs, the alternative products are proving to be not very effective.

Landscape Ontario also recently did a survey of their lawn care operators. These are just some of the statements

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that they received: "We're just barely hanging on. In a year or two we won't exist." "None of my clients are willing to pay $90 per application for a weed control on a small lawn. I have lost all my large properties because they will not pay $600 to $1,000 for a weed spray."

Clients are unwilling to accept price increases for organic products because they feel from the results last year the organic options were not up to expectations. Clients are not happy with services because of the lack of pest control — i.e., weeds and insects. "The cost of the products needs to come down, or we can't stay lawn care anymore." "Everyone is teed off about not having the traditional weed control products." And finally: "Many clients are still using the banned products."

On that note, how are these clients using the banned products? I researched and found a few news headlines. "Gardeners Cross-Border Shop for Illegal Pesticides." "Ontario Shoppers Escape Pesticide Ban in U.S." "Canadians Go On Line, Cross Border to Skirt Pesticides Ban."

These are some of the regulatory consequences that we think need to be a concern. For one, it is going to create a black market for the product. We know that's happening in Ontario. They're crossing the border. For two, it's going to remove the trained, licensed, certified applicators. So the professionals who know what they're doing will no longer be allowed to apply the products.

It undermines Health Canada's authority. The bans suggest that Health Canada isn't doing its job, and we believe, in fact, they are. It encourages smuggling of unregistered products. What I mean by unregistered is that Canada has a very strict regulatory system. There are products in the United States that aren't registered for use in Canada. Those products are being brought across the line as well, and that's a big concern.

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It also encourages homemade concoctions. People are making homemade pesticides in their kitchen, and they're using them out in their yards and gardens without being assured that these products are safe for their health or for the environment.

It deregulates the use and control of products being applied, which goes hand in hand with the government losing real control and knowledge of what's actually being used. Now
the homeowners are making their own products. They're bringing products from across the line or whatever, but the government has no idea what exactly is going on out there.

In B.C., of course, we've got a lot of our population in the lower portion of the province, so they have easy access to crossing the border to the United States and gathering products. Then we also have our border with Alberta.

Alberta has taken the stand that they trust the PMRA. The position they have taken is they are not planning on banning residential use. What they have done is removed the combination products, and why they did that was they felt combination products didn't fit into an IPM plan. So you're going to go out and buy a bag of weed-and-feed. You're going to cover the whole lawn with it, and in fact there may not be weeds over the whole lawn.

What they're saying would be a better alternative and remove the unnecessary use…. You can go buy a bag of fertilizer, apply it to the lawn area, and then you can buy a little container of weed control product and spot-apply to those weeds. That's a better alternative. That's an alternative that we would support as well.

In your handout I've given you a copy of the Canadian Consumer Specialty Products Association. They did a survey back in July, I believe, of homeowners in B.C. On the page and on your handout there's a link to the website that you can go to, and you can actually have a look at the survey and review the questions that they asked.

The first paragraph of this news release is what I wanted to pay attention to. "A new survey shows the majority of British Columbians favour the continued use of pesticides around their homes and in public green spaces, as opposed to having a provincewide ban on these products." So British Columbians are certainly not in favour of a provincewide ban. They realize that they need and they want to continue to use these necessary and safe products.

To summarize, the IPMA supports the use of pesticides under the guidelines of Health Canada's PMRA and B.C.'s Integrated Pest Management Act and regulations. It does not support further restrictions.

Just on a side note, I know that someone was here yesterday from UBC. This picture was taken a couple of years ago by our communications director, John Holland, and it is UBC's organic weed control program.

The IPMA believes pesticides are not cosmetic and are necessary tools for homeowners and companies throughout B.C. The IPMA believes in a science-based approach when dealing with pesticides, and the IPMA and the majority of British Columbians support continued use of pesticides.

I've added, just for your own information, a few slides to give you an idea of the damaging effect that homeowners can face without using pesticides.

I'm going to turn it over to Paul. Paul lives in Cranbrook, like I mentioned, and he's going to give you a little snapshot as to working under a ban situation and how it's affected their business.

P. Visentin: As Jacquie previously mentioned, both my wife and I own a fertilizing
and weed control company in Cranbrook, which is in the East Kootenays. I came down on business. You should have brought your committee down there. We could have got some business out of you down in Cranbrook. It would have been great.

Our company is called the Lawn Doctor. It's been in business since 1988. My father originally started it, and my wife and I took it over when his health wasn't allowing him to continue on. We service 1,000 to 1,200 clients between Kimberley and Creston and up into the Elk Valley. When we're fully staffed, we employ two full-time and four seasonal employees, all of whom are certified applicators.

Since 1988 the Lawn Doctor business in Cranbrook has been growing incrementally — in some years more, some years less — but it has been growing. But since 2010 we've had to reduce staffing as a direct result of local municipal pesticide bans.

As you have heard previously, the Community Charter is what governs the municipalities in how they can affect our business in terms of pesticide use. We have four of those communities in the area that we service. I'm just going to touch on two of them, which are Kimberley and Fernie. Those are the two cities that we have — or had — a lot of clients in.

Our clients depend on the use of safe and effective products to control unwanted pests such as weeds and bugs. Federally regulated products include herbicides and insecticides that have become the target of much misinformation and false accusations.

When the municipalities, back in about 2009, started to discuss in earnest — and some implementing of the pesticide bans…. Our growth has stagnated. We have had to basically put any major investment into our business on hold because of this continued threat of a provincial ban and also because of the continued threat that the Community Charter allows municipalities to continually impact our business — as well as Jacquie's business and every other ma-and-pa operation across the province of British Columbia.

As a direct result of the bans — and remember, this is just in Kimberley and Fernie; I'm not talking about our overall business in total — in Kimberley and Fernie we have lost over 40 percent of our customers in those two banned areas. The message we continually receive, and again received this year in 2011, from our customers when we called them to see if they wanted a repeat return was that: "If you can't get rid of my weeds legally, I'll do it myself."

Our clients are all encouraged to use IPM practices — such as aerating, overseeding, cutting the turf at higher heights, manually pulling weeds, and all the things that we believe is a proper IPM — before we come in and use herbicides, insecticides, fungicides or whatever the -cide might be. What our clients want is they want a reasonably weed-free lawn with curb appeal that they can enjoy. Needless to say, the enjoyment factor is diminishing in the communities with the bans, along with the green space infrastructure that
those municipalities are looking after.

We expect that in 2012 we will continue to lose more business due to municipal bans. I fear what will happen if this committee recommends restricting the use of the safe and approved products for homeowners and companies. It would take away all the gains we have made in the past ten years and make it difficult if not impossible to recover.

I wouldn't be as concerned about this issue if there were any alternatives available for us to use commercially — or for the homeowner to use, for that matter. These are alternatives that Health Canada has to approve, not the alternatives that Jacquie mentioned are cooked up in the kitchen and thrown out on the yard. These are alternatives that Health Canada actually does a testing on to ensure that they're safe for people and the environment.

There just aren't any alternatives out there that work. They're ineffective. They're costly. You have to use them in two, three, four times the amounts that they say to get any results out of them. When we go into a yard to do some treatments on a commercial basis, we just don't use alternative processes, other than some cultural issues in the pesticide ban areas.

It's interesting, as well, that in the Community Charter, under the spheres of concurrent jurisdiction of the environment and wildlife regulation, it allows the municipalities to ban pesticides. And what they've done is they've taken the excluded list that's under the Integrated Pest Management Act and used that as what they term the non-toxic or least-toxic list.

They include that as part of the list that we can use, saying and thinking that's an alternative. But in fact, the alternatives that are registered by Health Canada that could be used commercially by us or by a homeowner domestically are banned in those municipalities by virtue of the poor wording of that sphere.

It leaves our company with no real alternatives to use on a commercial basis, and contrary to what somebody might say, there is nothing on the horizon for new products, for alternative processes, that are being approved by Health Canada, to my knowledge.

**B. Bennett (Chair):** Thank you very much, Jacquie, Paul. We'll have a few questions, I'm sure. MLA Fraser, are you ready to go?

**S. Fraser:** Always, yes. Thanks for the presentation. It's a good perspective, because we haven't got it from the commercial operators that do the work you do.

I guess a couple of comments and/or questions. You know we had a presentation from the Cancer Society. There are issues related to health around exposure to pesticides. I know you are professionals. A large number of people that use the over-the-counter pesticides in communities for lawn care — for beautification of yards, whatever — are not professionals, and so it's almost an apples-and-oranges thing we're talking about. Although, I recognize the effects that
legislation could have on your industry.

Just going to a couple of points. You had stated earlier, Jacquie, that the…. Paul, you also touched on Health Canada's role. We and other jurisdictions have looked at the role and have questioned whether or not that is sufficient.

Indeed, there was a parliamentary committee that has raised issues around the role of the PMRA and its links to and potential influence by industry. So there are questions about that that have been brought to our attention, and by parliamentary committee. There are issues there that we do question.

Then there were two presentations yesterday from medical experts that were bringing in issues of concern. I would just touch on the one statement that was made.

This is from a review that was done in Ontario in 2004. They did a comprehensive review, they're claiming here, of the literature looking at health effects, with over a hundred studies. They found that there was strong evidence that pesticides caused birth defects, infertility, neurological diseases such as Parkinson's disease and a number of cancers.

Then they went on to say that the alarming thing they found was that the rates of childhood cancers — including leukemia, lymphoma and brain tumours — were increased with the typical home and garden use of pesticides during, after and even before pregnancy.

We're looking at all those presentations, too, and trying to adjudicate how the province should proceed. Using what's often called — it's a confusing term for me too — the precautionary principle, it would seem that with the preponderance of medical evidence suggesting that there could be a problem, it might be cause for us to consider a ban or some restriction in use in the province, as other jurisdictions have done.

Sorry, a long way around, but do you have any comments on that? We're needing your help here.

**J. Doherty:** Well, for one thing, I would like to say that the PMRA, when it evaluates these products, uses the precautionary principle. So that's already factored in. Certainly, I'm not an expert on toxicology, but I think Keith Solomon this morning answered a lot of those questions.

The other thing that I wanted to bring to your attention is that a hundred studies may sound a lot to us, but in fact, the chemical 2,4-D has had 40,000 studies done on the product. I'm certainly not taking away from the presenter, but she represented herself as a medical doctor. I don't think medical doctors are toxicologists, so I'm not really sure if even she is in the position or in her realm of expertise when she's making these kinds of studies or statements.

**P. Visentin:** Just to clarify one point. You talked about the commission on the environment, which you mentioned. That gets mentioned quite a bit.
People always go back and refer to this one. I think it was in 2000 when that statement came out that the PMRA wasn't doing its job adequately, and there were some other comments made around that.

Maybe you might want to go back and look at the one that was reported — I think it was in 2008 — where they said that the PMRA has done what they've asked them to do, and now they're doing a lot better job of following up and dealing with the reviews and registrations.

So it's the continual comment by people — and we get this all the time — that these pesticides are bad for you. Pesticides get lumped into a general term. I don't know the exact number, but I've been told that there are 700-plus active ingredients that are termed pesticides in Canada that Health Canada has some kind of control or purview over. Of those, I believe one of the presenters mentioned there are about 15 that are used in the lawn care industry.

Pesticides are not a lump of products. They're all very specific. My understanding is, in listening to people like Dr. Solomon and Dr. Len Ritter and doing my own little bit of research that I can do, that the pesticides we use in lawn care, that we use in our business in Cranbrook, have absolutely no health concern to the clients that would use them on their properties or to our applicators, if we follow the label directions.

That's the basis that I go by from a company standpoint. Whether there's a toxicologist or an epidemiologist or some other doctor that may say something different, there are so many differing views on that that from a company standpoint and from a client-based standpoint, I have to go with the experts in the federal government.

I would suspect the provincial government should be supporting the federal government as well and not going against the grain of the federal government. It really sets everything against the whole process by having multiple levels of government fighting each other over the process.

J. Slater: Thank you for your presentation. Of what you've heard today…. You've heard all the way from here to over here.

The cancer societies, for example, are trying to prevent cancer. They believe that the toxicology of these chemicals that we're using — whether it's in our orchards, in our field crops, in our backyards — is dangerous for humans, especially youth. As MLA Fraser said, we heard yesterday that the younger they are, the more susceptible they are to some of these chemicals.

Now, you say you only use approximately 15 different herbicides in your practice, whether it's for bugs or bad weeds, or fungicides — right? The presentation we
had this morning was that they've done review on testing that doesn't show conclusive evidence that some of these chemicals that are being deemed to be cosmetic are dangerous.

As regulators do it, they want to have a precautionary approach. "Just in case this stuff could be dangerous, we're going to try and eliminate it." Where's your stand on that?

**J. Doherty:** I guess our position is that we trust Health Canada and we trust toxicologists and the 350 scientists that have looked at these products. We believe, like Keith Solomon said earlier today, that these products are not toxic.

As far as the domestic use, the PMRA takes into account that possibly, the homeowner may not use these products appropriately. That's already factored in, in the risk assessment.

**J. Slater:** Okay. But the PMRA, the CFIA, the food industry and all these guys and the U.S. EPA look at these chemicals and say: "Okay, if you wash those cherries, they're safe to eat." If they don't wash them, they're unsafe.

We got a report yesterday of thousands of kids that have been reported to Health Canada, saying: "We have an issue with a pesticide." Nobody really knows what those look like. Maybe it was a neighbour's kids coming into the orchard, where they shouldn't have gone, and eating those apples or cherries or something like that.

Do you get any reports from any of your clients or anybody in the association that says: "Oh yeah, we had to send one of the kids to the hospital to get it checked out"?

**J. Doherty:** That's certainly never happened in my experience. We've operated our business for 23 years. We have over 2,000 customers. Most of them are repeat customers, so a lot of them we've had for over 20 years.

What's happening now is that actually, I'm getting phone calls from the children of our original customers wanting us to come and take care of their lawns. They've now bought a house. So in my experience, I would say no.

**B. Bennett (Chair):** Mr. Visentin, did you want to say something about the precautionary principle?

**P. Visentin:** Well, I'll stay away from that, because I'd be here for an hour. But I will just touch on one thing, which might help clarify what Mr. Slater was asking about.

If you want to use the precautionary principle on a product, here's a very good example. On the excluded list — it's in the municipal bans — you can use acetic acid, which is commercial-grade vinegar, for doing top-kill of vegetation. Or you could use Roundup in an area that doesn't have a ban.

For example, in Kimberley. I'll pick a person's lawn. I can go on that person's lawn, treat the weeds with acetic acid, let's say, just to dab that one dandelion. But next door in an empty lot, where there is nobody living on that empty lot, I can use Roundup. I can kill everything, and I'm still legal within the municipal ban inside the city of Kimberley and
Fernie. That's the way the Community Charter... That sphere has been worded wrongly, I think.

Anyway, acetic acid and glyphosate, which is the chemical name — if you were to use the precautionary principle to determine which of those two products should be added to our banned list....

LD50. I'm sure one of the presenters must have said what LD value is. Acetic acid, commercial-grade vinegar, has an LD value of 3,310 milligrams per kilogram. Now, that's permitted in a bylaw. As you increase the number of milligrams per kilogram, the toxicity gets less.

"Acetic acid" — this is the listing of it — "is hazardous to aquatic invertebrates. Do not apply directly to water. Do not contaminate water by cleaning of equipment or disposal of wash waters."

Glyphosate, or trade name Roundup, has an LD50 of greater than 5,000 milligrams per kilogram. Solely based on the LD50 value, which is a scientific value, you would ban acetic acid but allow Roundup, on a precautionary principle. Glyphosate is not considered toxic to bees, is practically non-toxic to aquatic organisms on an acute basis and practically non-toxic to birds on an acute basis, and bioconcentration potential is low.

Just again, on the precautionary principle, of those two products — as a committee, if you were going to sift through products — you would allow Roundup but not acetic acid, and the reverse is true with the way the bans are now in place.

**B. Bennett (Chair):** MLA Fleming, you're going to get the last question.

**R. Fleming (Deputy Chair):** Well, I think what I just wanted to do was correct Jacquie, because we had the opportunity to have a Health Canada witness here, Mr. Lindsay Hanson. You had mentioned, just in answering another one of my colleague's questions, that Health Canada factors in and does discounting for improper use by applicators, by homeowners. In fact, they do not.

There's an assumption by Health Canada that there's 100 percent compliance with the use-as-directed labelling for pesticide products. And we've heard in other testimony that some of the assumptions — if you read the eight pages of small print on the label directions — demand of the homeowner to understand the water

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table, for example, in their backyard, demand that they know the soil permeability conditions in their yard — things that are probably extremely unlikely for most British Columbians if you polled them and asked them directly questions like that.

I just wanted to let you know that we did hear directly from Health Canada on that,
and they do not factor in non-compliance or the exposure levels that may happen for people who use the products improperly. They assume that 100 percent of Canadians use them properly — which I think we can fairly say is not the case.

**J. Doherty:** Okay. I guess where I wanted to clarify is that when you look at domestic use products, as opposed to professionally applied commercial use products, the domestic use isn't the same strength as what maybe commercial users would have access to.

**B. Bennett (Chair):** Thank you for coming and presenting to us. We appreciate it.

Our next and last witness for the day is Mae Burrows, who is representing Toxic Free Canada and also First Call: B.C. Child and Youth Advocacy Coalition.

We'll just let you get set up there. I won't start my little stopwatch here until you're ready to go.

**M. Burrows:** That's fine, and I've heard the introductions. Thank you very much for being here, gentlemen. It is nice to be able to talk on this.

I'm going to be talking on behalf of two organizations. One of them is Toxic Free Canada, which is an organization that's pretty transparent, inasmuch as it tries to do what the name is. We're trying, wherever possible, to eliminate toxic chemicals in workplaces, in homes, in schools and in our community. In particular, I have an occupational health and safety background, but I also have a pretty good background on consumer products and on pesticides.

One of the organizations that we work very closely with is the First Call: B.C. Child and Youth Coalition, which represents over 90 organizations in communities throughout the whole province. Their interest in this, of course, is from a child and youth perspective.

What I'm going to be kind of wrapping my talk around….

Mr. Bennett, how many minutes have I already…? I'm not expecting a phone call. It's my own watch here.

**B. Bennett (Chair):** You haven't even been a minute yet. You're doing very well.

**M. Burrows:** Okay, good. I'll keep going here.

My talk is going to be very child-centred — from the lens of a child and from a mother's lens also, where we want to be looking after our kids. I know others have talked about carcinogens and those chemicals. What I'm going to try to focus on is the neurotoxins and reproductive toxins. I also want to talk about the birds and the bees — that goes along with kids, you know — and salmon and so forth.

I'm on the same page as a number of speakers that you've heard here today. What we're
looking at is what we would call the unnecessary use of pesticides. We're talking about homes and gardens here. We think that there's unnecessary exposure in many of the pesticides that you can buy still. Even if communities have banned the use of them, we can still buy them, because the province has not yet done what we're going to ask it to do today, and that's ban the sale of those products.

These are products that you can buy on the shelf — just anybody. You don't have to have a licence. You don't have to know how to read anything. You don't have to do anything. You just have to have enough money to buy these products and spray them around your yard and garden. That's what I'm talking about today.

I know that you've heard this before, but I can't help it. It really is important.

The most vulnerable, in terms of pesticide exposures, are pregnant women, because they're carrying a fetus that is not developed. Their brain isn't developed yet. Their organs aren't developed yet. Their testes aren't developed yet. Their little hearts aren't fully developed yet. They might be pounding, but they're not developed. When the mothers are exposed to pesticides, the babies are exposed as well.

That exposure can be extremely low dose. A lot of the presentation that I'm going to do is going to be on really low-dose exposure. Because if you're talking about endocrine-disrupting chemicals, even chemical producers — the chemical producers specialty products association…. I was on a Health Canada consultation for a couple of years with a number of industry people. The topic of it was consumer products, but the only thing we got consensus on, on that Health Canada committee, was that there is no safe level of exposure for endocrine-disrupting chemicals, period, with babies and pregnant women.

There are endocrine-disrupting chemicals in pesticides, so that's what we're going to talk about here, and we're going to talk about the neurotoxins.

In terms of sending false signals to the developing reproducing organs, one of the things we know is that the male testes starts to develop somewhere in gestation, in vitro, around day 57. It can cause actual DNA damage if there's exposure to pesticides at that time. As the youth grows up and starts to go through the tremendous endocrinological changes, hormonal changes of adolescence, he could get cancer. Testicular cancer, which is called young man's cancer, is associated with exposure to pesticides. It's the cancer that strikes young men between the ages of 18 and 24 mostly. That's surely a cancer that we would want to prevent.

As I said before, these are some of the other animals that I'm wanting to represent today. There can be whole collapses of fish runs because of exposure to pesticides. This is a picture of a little chorus tree frog in my rose bush. If you're going to spray the trees — you can see that cute little frog in the pink flower — they would be exposed. I want to talk a lot about birds and bee populations as well.

I'm a pretty straightforward person when it comes to this. I don't think there's too much mysticism or confusion about it. Coming from a health and safety background, I know
that…. When we're given products that contain hazardous chemicals on the worksite, we're given a material safety data sheet, which is, by law, what's supposed to happen. You simply get a list of what are the hazardous chemicals in that very product. Then that allows you to ameliorate your exposure and so on, or else, perhaps, work with your committee to get an alternate product.

When I look at these pesticides, which are the common ones you buy in Home Depot and so on…. By the manufacturer's own ingredient list, they do list chemicals that according to database science — you know, according to the World Health Organization, according to a number of quite reputable science bases…. If you match the chemical, you'll see that it's a carcinogen or maybe a neurotoxin or maybe an endocrine-disrupting chemical or a reproductive chemical.

It's no big mystery. These chemicals are in some products. They're not in all products, but you just go to the manufacturer's own sheet, and you'll see that this array of chemicals is in the products.

They'll say: "Well, just handle it properly." On the worksite we really try to do that. But here are just some examples of how people handle or don't handle….

You see a woman here, the woman on the right. She's got a product off the shelf. She doesn't really have a glove on, and that's the very least they tell you to do. They start to tell you to wear socks and gloves when you're handling these, but what about all the skin in between? There's her bare hand.

Then there's somebody using Killex, which of course would also say to try to protect yourself. That person's got a glove, but it's a cloth glove. Really, it should be a neoprene glove if you're going to handle it properly. Plus, we can see her bare skin there. The skin is the biggest organ on the body to absorb these chemicals.

Then there's another couple of guys out there spraying, and their faces are exposed.

Interjection.

M. Burrows: Good evening. Well, you've got the hand right.

Using it according to directions doesn't happen. Let's be really frank about it and not sort of fool about it.

The other thing that we really know about these cosmetic pesticides is that there's quite a bit of drift. It's not so bad as crop spraying used to be, where they hit very little of their intended target, but the estimates are, with the spraying and stuff, that they probably reach less than 10 percent of their intended target and that the drift from just common pesticides can go a hundred metres. So a guy might be in his yard, and the kids are in another yard, and there you go.
To be talking about the bees…. The bees might be in that drift, and I just want all of us — we might be getting ready for supper — to get really clear….

I went to a wonderful thing that the metro parks put on this weekend. There was a great lecture on bees in British Columbia. I learned a lot, and one of the things I learned is that bees give us one of three out of our food sources. So we want to keep these guys around and healthy.

Bees native to B.C., I learned, particularly like dandelions and clover. Because I love food and bees give me one out of three pieces of my food, I'm going to grow a lot of dandelions and clover this summer.

Let's talk about what happens with some of these neurotoxins in pesticides. What we want to do is kill the little brain of that bug so that it will die.

There are three kinds of neurotoxins that are in pesticides. Again, not in all, but they can be identified.

One kind interferes with an enzyme that we have in our brains called cholinesterase. What it does is it essentially allows us to communicate between our various nerve cells in our brain. You take that enzyme away and destroy it, and you don't have such good communication in your brain anymore.

A second kind of neurotoxin is pyrethroids, which affects transmission of impulses along the nerves. So you don't want to be interfering with that. Then there's a third category, a third kind of neurotoxin, which damages the myelin shield insulation which covers your spinal cord and your nerves. These are all very sensitive parts of your body. They're intended to do hard damage to the bugs, but what we find is that they do hard damage to a human brain as well.

I think this is a fascinating study. This Dr. Guillette has done studies on pesticides. She's done studies with children in Bhopal and the effects of the toxics there.

What you have on this is a situation where there are two populations of a Mexican population. They are genetically the same, and they travelled to different ends of this Mexican valley. Just through time and culture, one continued to do all of its farming without the use of any pesticides, and another started using pesticides.

She's an anthropologist, so the way she was trying to understand the impacts is that she did all kinds…. I've seen the videos of this. I mean, she's fascinating. You can see her videos on both Bhopal and Mexico.

But she had the kids do really simple tasks. This is a very simple task. Think of a little four-year-old, your little toddler type. On the right-hand side it's from the population where
they were using pesticides for decades on their food. On the other side is the pesticide-free community. So you can see that, really, neurologically, they're more developed in the community where they weren't using the pesticides compared to the community where they were using pesticides.

And the thing that's really sad about watching some of these kids is that they draw these pictures or put pieces together, and then they just look up and smile at you and think that they've done it really good. So they don't even see that they haven't put the thing together right. They don't even see the difference.

So there's one scientific example of the effect of neurotoxins from agricultural pesticides. I know we're not talking about agricultural, but it shows pesticides.

I think Dr. Lanphear was here yesterday, and I know that he was talking a bit about some of the learning disabilities that we're increasingly seeing in our schools. I think he used the figure 9 percent. I always like to try to be really conservative on these things.

I can tell you, from a number of scientific sources — and give you any of the citations, if you want — that really conservative estimates have the range of attention deficit hyperactivity deficit disorder, autism spectrum.... These various... Really, ADHD is considered a mental illness. It's so harsh for some kids to be able to deal with ADHD that it's actually listed as a mental illness now.

And if you think even 5 percent and you think of a little school, just a tiny school, say, with 500 kids in it, you could have 25 kids in that school with a learning disability, which is a lot. So we should do anything that we should to try to curtail this and prevent it.

I want to talk about Health Canada, because that seems to be what this is an awful lot about. I, too, believe that Health Canada.... I've been working in this area for 22 years. I've worked with a lot of Health Canada committees, and I've been on Health Canada committees. I see them pretty slow to act, especially when it comes to kids and especially when it comes to low-dose exposure. I think what we're just almost starting to get in this bit of the decade is that....

Well, I think that Bruce talked yesterday about lead. It's kind of weird because the lower the dose of lead, the higher the damage the exposure could happen. We've got to start getting our minds around exposures as low as one part in four billion parts. Imagine an Olympic-size swimming pool and a drop of water, and that's what we're talking about in terms of exposure with endocrine-disrupting chemicals, neurochemicals.

BPA is the poster child for Canada moving really slow on things. BPA, bisphenol A, was identified as a xenoestrogen — that's an endocrine-disrupting chemical — in 1936. That's when a lot of these chemicals came out, in pre- and post-war years. They were used as weapons during the war and then were put into commercial products, a lot of them.

We've known, even in ’36, that bisphenol A can cause cell changes at extremely low doses. That's the one in four billion. In animal studies they've seen in vitro exposure causing mammary gland tumours, and then it's also associated very heavily with breast cancer, as well as a number of other cancers, Alzheimer's, some of the learning disorders and so on. So surely we should be having BPA out of the system by now.
Finally, Health Canada, after huge…. This is no secret agenda on my part. I spent a lot of time trying to get BPA banned in Canada. All that Health Canada has really done is banned BPA in baby bottles and sippy cups. So they admit that babies can't have low-dose exposure to BPA. But gee, I guess an unknowing pregnant woman could still pick it up and be drinking it. So it's a very inadequate ban. It really speaks to, you know…. It's a poster child for Health Canada's behaviour towards kids.

I know all of this will be debatable, but I just want to put forward these points of view on IPM, and I have read a few of the studies that have been quoted here today.

It doesn't necessarily eliminate the use of cosmetic pesticides in the home and garden. It's almost that kind of thing. Like, if you've got a pesticide in your toolkit, you kind of almost should use it — right? You kind of haven't finished your job if you haven't done that or something. So some studies have shown that it actually increased in use. And there are no promises that, because it's IPM, they won't be spraying in wind and so on and so forth. That's something that's really got to be closely monitored.

What I want to ask you, really, is: if we're going to have this IPM system, who's going to do the monitoring of the accreditation? And who's going to keep their eye on the fact of: is this the last tool, or is this the first tool? You know, where are we going to get the enforcement and compliance officers from? I work with a lot of WorkSafe guys, and boy, they're busy. They're full up.

Then, I think that the Forests, Lands and Natural Resource officers…. God, they're busy. They're even working in areas where they don't really have training. I mean, if you know something about mining, you might not know something about log-scaling and, certainly, not about pesticide use.

I think if it's going to be an IPM attached to the cosmetic use of pesticides for applicators to go into people's yards — like that house up on the right — I'd like to know where the funding is. I want to know the budget line to make sure that there's monitoring and enforcement — that is, assuming that the government intends to regulate this.

I just love these pictures. There were some of these questions that people…. What would you look like, if you were dressed properly to go and spray? That's what you'd look like — the guy in the bottom right. That's probably a commercial greenhouse. Then, look at what he's wearing, and that's protection. That's sort of what you were asking, Mr. Stewart. You know, what would a person look like if they are doing that?

Then, the guy up there on the top looks pretty good, but most of the people that are doing it have got bare arms, bare hands, bare head — you know, bare. So they're not dressed properly. That's a regulated exposure.

I just want to end that. I think it's time. There's a new paradigm out there about trying
to avoid chemicals wherever we can avoid them. If I know my kid is going to a playground area or something where there's terrible traffic or people that I don't feel safe about, I just avoid it — right? We can just avoid exposing kids to pesticides.

There's my lawn on the left. It's a lovely green space. Our whole neighbourhood — we all have, pretty much, frontyard gardens now and backyard gardens and gardens on our decks. So it's that lovely.... You know, exactly what the Coastal Health doctor said. Yes, it's a beautiful green space.

There are some heritage large pole beans. I had so many. I just had such a wonderful garden this summer. I'm so sad. I can't get those field cucumbers anymore. Those awful skinny things that they sell now in the stores are disgusting.

**J. Slater:** You should grow them.

**M. Burrows:** Anyway, that's my garden. That's the cabbage — all organic. Good old compost. There's my dog, and he's really safe too. So let's remember our pets.

You know, there was a time when.... Well, we don't want to see these young girls smoking. We don't want young kids exposed to those kinds of chemicals. We don't want them exposed in any way. Some of the same chemicals in cigarettes are in pesticides — honestly.

This picture of this woman and a baby. Oh my god. We'd probably go up to them and say something if that happened. So that's the old paradigm.

Here's my son. He's much older now, but he was 11 years old when he had his paper route — right at the age of puberty. So we want to be protecting his, you know, crown jewels and everything else from then on and up to then. He had 88 papers, so he went into kind of 88 worksites — right? Did he have a right to know what was in each worksite? Did he have a right to protect himself from exposure?

Somebody might have done some moss spraying. Somebody might have sprayed Killex. We don't know what he was exposed to, and it's not fair. It's not fair that he's exposed for the little bit of grass growing between your rocks. I think it's time that we just stop unnecessarily exposing our children.

That's my presentation.

**B. Bennett (Chair):** Thank you very much, Mae. You're the last presenter of the day, so I'm hoping that committee members will still have enough energy left here today to ask you a couple of questions. I can normally rely on MLA Fraser. He's nodding his head. He's ready to ask a question.

**S. Fraser:** I am, and thanks, Mae, for this. We've been getting a lot of information, and we are — I'm speaking for myself — laypeople in this. I've had some experience working
with pest management in another lifetime for Environment Canada, pesticide spraying for spruce budworm in the Maritimes. Certainly, I hope we've come a fair long way since then.

You touched on Dr. Lanphear's work, which caught me yesterday. It struck me as… It raised a lot of questions for me in the sense of concern about the neurotoxicity issues of some of the endocrine disruptors — the products that you're talking about that include those disruptors. You were specifically talking about some of that particular category of pesticide.

Are you aware? In the places like Quebec and Ontario that have done bans, do they highlight those particular types of deleterious substances, as far as the bans go? Do they capture them as a significant part of the ban?

M. Burrows: Yes, they would be banned, because they are significantly toxic chemicals. They would not appear on a white list. So those would be the only ones to use. Because they would contain whatever — a carcinogen, a neurotoxin, an endocrine disruptor, a reproductive toxin, which are common in some pesticides — they would be banned in Quebec and in Ontario. They would be part of the ban.

I have names and products that contain those chemicals. If you'd like a list of them, I could even say them. They are stuff like Killex. Killex has an endocrine disrupting chemical in it. They are there.

The problem with labelling is that we sort of say: "Oh, if everybody would just do what it says on the label." Well, first of all, you know how long the label is and how hard it is to read. Secondly, none of these chemicals are ever listed on the label. It just says, "Be careful" or "Beware" or something like that. So you could have a product with a carcinogen, a reproductive toxin and a neurotoxin, and it would not tell you that. It would not say.

That was the Health Canada committee I was on for a couple of years, where we were actually representing the side that wanted product labelling. The chemical producers really were arguing a trade argument more than anything, because they mostly represented American companies, and it would be really deleterious to trade if we had to have special labels in Canada. So these chemicals are never on the labels.

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They won't even say something as vague as, "This could contain a carcinogen" or whatever. They'll say, "Don't spray it around kids," but my goodness, I would hope people are not back on that tobacco one where they would ever dream of spraying any of this stuff around kids.

So the labels are woefully inadequate, and if they say, "Wear gloves" or something, they don't talk about how you really get exposed. I've worked with farmworkers, and I know where the exposures are.

S. Fraser: Following up on this, Mae, the issue that I raised with Dr. Lanphear yesterday. I've seen in the literature — relatively recent literature. But you work on
committees with Health Canada, so I'm just curious.

The fact that trace elements far, far lower than the acceptable limits that have been laid out by Health Canada and the PMRA…. There are studies being done now that very, very small amounts — you've touched on this — of some of these substances can actually have an effect. He tried to explain that actually the lowest levels have the highest percentage of effect at that point — way below the levels. Did that ever come up in any of your committee work with Health Canada?

M. Burrows: Oh, it did indeed. That's where, through a very tedious back and forth, actually — it went on longer than it needed to, I think — we did reach consensus. They call it a threshold level. There is no safe level of exposure for endocrine disrupting chemicals for children with developing brains, developing sexual organs, organ organs. They did agree to that.

The other comment I'll just say about acceptable levels is that it's like: what's an acceptable level of an exposure to a carcinogen? Is it one puff off a cigarette, or is it 900,000 cigarettes? Or is it: where else are you during the day? Where are other exposures? They don't talk about the synergistic effect of exposures. So you might be exposed as a baby to a neurotoxin and a reproductive toxin. Then another time you might…. There's another exposure and another exposure. So it's acting as if there's a single entry door for exposure.

By the way, most of the exposures are really calculated for a 150-pound male, some mythical 150-pound male — I don't know which one of you might be that guy — who can take a certain level of exposure. The assumption is that he can take it, so we'll allow it on the market.

Well, we're not talking about developmental times, for one thing. The developmental times. It's like people will get it if you say FASD, if you talk about fetal alcohol syndrome. So what can happen there, if a mom is just even….They call three drinks in a session binging — the FASD specialists. So if a mom is having three glasses of wine and her baby's frontal cortex is developing in vitro, that baby don't have no frontal cortex ever.

B. Bennett (Chair): I'm going to try and see if I can't sneak a couple of questions in here for you, Mae.

M. Burrows: Okay, you try.

J. Slater: Endocrine disruptors. In the Okanagan we went through a program about a year or a year and a half ago on disruptors in Okanagan Lake and where they were coming from. It was speculated that 80 percent of those disruptors came from under the kitchen sink, under the bathroom sink, out of the cupboards for drugs and other stuff, makeup and all that stuff. The chemical disruptors that come out of pesticides are really, really tiny
compared to what was in that study.

Like you say, that's one drop in an Olympic-size pool. But I think we need to make sure that what you guys are doing here with just this stuff and the runoff into the creeks and storm drains around the homes and stuff that gets into our water system — that's how we get it back.

The other one, of course — I know we're on pesticides — is the 2.5. A lot of the people are breathing this stuff. There was a lot of talk in the Okanagan where we spray them with pesticides — all these apple trees and everything — and then we burn them to get rid of them. Now we're chipping them, but the chemicals are still on the trees in the fall when we rip them out and burn them. Again, it's air quality as well. So just keep that in mind.

**M. Burrows:** I do, and I think those are really, really important points. Some of the studies show — if I may, on pesticides — that male fish have shown up with fully developed egg sacs. Sewage. Birth control pills unprocessed.

**J. Slater:** Yeah, exactly.

**M. Burrows:** So it's crazy. What we're saying is: "Let's control whatever we can. Just control these chemicals as much as we can, because we've kind of gone crazy with them." You make a very good point.

**B. Stewart:** I guess, really, what I would be interested in is knowing what type of restrictions Toxic Free Canada supports. You've pointed to some reasons why there should be some limitations. I'm just wondering how broad you see that being. You mentioned spray drift and things like that. Being that we have a fairly intensive urban environment competing against an agricultural environment, where do you see separating the boundaries on that?

**M. Burrows:** Your question is kind of like: if the people are spraying their orchards, how do we…?

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**B. Stewart:** Well, we're here to discuss a cosmetic pesticide ban, and I'm asking you: from your position or your presentation, where do you stand? What do you support?

**M. Burrows:** On the cosmetics?

**B. Stewart:** Well, what we're hear to talk about.

**M. Burrows:** Yeah. I support the full legislation that was put together by the
Environmental Law Centre at the University of Victoria, which is a ban on the use of cosmetic pesticides for lawn and garden and trees, with the white list.

B. Bennett (Chair): Thank you very much. Thanks for hanging around this afternoon and taking part in our committee work here. We appreciate it very much.

[1550]

Committee Meeting Schedule

B. Bennett (Chair): Committee members, before we rise here, I just want to get on the record for the folks at home that our process will continue until December 16. That's the deadline for making submissions. We do have another public meeting scheduled for November 17. At the present time that's the last one we have scheduled for now. But members of the public can provide their thoughts up until the 16th of December, and they should go to our website, which is www.leg.bc.ca/pesticidescommittee.

Thank you, everyone, for your assistance today. Thank you, Kate. Thank you, Morgan. Thank you, Hansard. Thank you, committee members. It was a good day.

We're adjourned.

The committee adjourned at 3:51 p.m.