PRINCE EDWARD ISLAND LEGISLATIVE ASSEMBLY

Speaker: Hon. Kathleen M. Casey

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Standing Committee on Agriculture, Forestry and Environment

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MEETING STATUS: PUBLIC

LOCATION: POPE ROOM, COLES BUILDING, CHARLOTTETOWN

SUBJECT: MOTION #13 - COSMETIC LAWN PESTICIDES

COMMITTEE:

Alan McIsaac, MLA Vernon River-Stratford (Chair)
Jim Bagnall, MLA Montague-Kilmuir
Paula Biggar, MLA Tyne Valley-Linkletter, replaces Carolyn Bertram, Minister of Communities, Cultural Affairs and Labour
Cynthia Dunsford, MLA Stratford-Kinlock
Sonny Gallant, MLA Evangeline-Miscouche, replaces Robert Henderson, MLA O'Leary-Inverness
Robert Mitchell, MLA Charlottetown-Sherwood, replaces Buck Watts, MLA Tracadie-Hillsborough Park [evening session only]
Pat Murphy, MLA Alberton-Roseville, replaces Charles McGeoghegan, MLA Belfast-Murray River [afternoon session only]
Robert Vessey, MLA York-Oyster Bed [afternoon session only]
Buck Watts, MLA Tracadie-Hillsborough Park [afternoon session only]

COMMITTEE MEMBERS ABSENT:

Carolyn Bertram, Minister of Communities, Cultural Affairs and Labour [both sessions]
Olive Crane, Leader of the Opposition [both sessions]
Robert Henderson, MLA O'Leary-Inverness [both sessions]
Charles McGeoghegan, MLA Belfast-Murray River [both sessions]
Robert Vessey, MLA York-Oyster Bed [evening session only]
Buck Watts, MLA Tracadie-Hillsborough Park [evening session only]

GUESTS:

Island New Democrats (Zain B. Esseghaier, James Rodd); Joan Doyle; Green Party (Sharon Labchuk); O Beautiful Gaia Singers (Melissa Mullen, Michelle Jay, Cynthia Hickox, Anne Mazer, Louise Burleigh); The Cooper Institute (Marie Burge, Maureen Larkin); Kool Breeze Farms (Ian Simmons); Gary Schneider; Margie Loo; Institute of Island Studies (Dr. Irene Novaczek); David Daughton; David Thompson; CropLife Canada (Lorne Hepworth); Syngenta Crop Protection Canada, Inc. (Dr. Donna Houghton); Dr. Robert Coffin; Canadian Cancer Society-PEI Division (Dawn Binns); Dr. Alice Crook; Lisa Gallant

STAFF:

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

Edited by Hansard

The Committee met at 1:36 p.m.

Chair (McIsaac): Welcome folks. I'd like to convene the second sitting of our discussions on Motion 13, the use of cosmetic pesticides.

I'd like to welcome everyone here to the proceedings and all the presenters who are presenting this afternoon. We're a couple of minutes late but we do have a quorum, so we can get underway.

First item, anybody with a cell phone or Blackberry, would you make sure it's turned at least to vibrate, if not off completely. A little note, too. We'd like those in the seats at the back, pay full attention but refrain from applauding or jeering or anything like that. Everyone will have their - there goes your support group, James. Anyway, that would help the proceedings. Each group this afternoon has 15 minutes, and I will give you a five-minute warning so you can wrap up. We'd like to have questions, most likely; maybe you will as well.

Anyway, we're going to start now. Our first group of presenters, becoming well known to the agriculture standing committee, we welcome you back, the Island New Democrats, to discuss with us their concerns or comments on the use of cosmetic pesticides.

I'd ask you again when you begin, just for the sake of Hansard, if you would introduce yourself please, and then carry on.

Zain B. Esseghaier: Zain Esseghaier is my name. I'm a 25 year old UPEI graduate and I'm the coordinator for the Island New Democrats.

James Rodd: James Rodd, interim Leader of the Island New Democrats. I'm an organic farmer and I farm in the community of North Milton.

Mr. Chairman, thank you for this opportunity again to make a presentation to the select Standing Committee on Agriculture, Forestry and the Environment. The implication and the potential impacts of cosmetic pesticides are what we are going to discuss with you here today.

Island New Democrats support the idea of a province-wide cosmetic pesticide ban and we hope to expand the discussion, as well as propose practical steps with strong reasoning for addressing this important issue. If we were to identify ourselves as cosmetic pesticide-free - I'm not saying as individuals, I'm saying if we as a province can identify ourselves as pesticide free - and move towards organic production, we will be joining with Quebec and the 130-plus municipalities that have or are putting their children, seniors and the health of their citizenry ahead of the cosmetic application of pesticides.

Island New Democrats recommend, then, to the Prince Edward Island government, that we move towards a complete Island-wide ban on cosmetic pesticides. We're asking that the Prince Edward Island government immediately enact the precautionary principle as it applies to this issue of cosmetic pesticides. Island New Democrats are saying to the PEI government to take the necessary steps to provide a two kilometre no spray zone around all municipalities, senior citizen homes, hospitals, schools, daycares, recreational areas, campgrounds etc., which are outside of the jurisdiction of the municipalities.

Island New Democrats are also saying that the Prince Edward Island government work towards laying the groundwork for a ten year transition to become an organic, responsible agricultural province. Mr. Chairman, the time is right for rethinking and reinventing how we as an Island, and as Islanders, identify ourselves to the world and how to present ourselves to international

markets as an agricultural province.

Zain B. Esseghaier: I'm going to talk a little bit about some of the benefits that we see for an Island-wide ban on cosmetic pesticides.

There are a number of benefits as we've researched them, as we're heard about before. I'll just break it into two simple categories. The first benefit that we see is the protection of our citizens, which goes first and foremost. Through banning cosmetic pesticides we have the opportunity to save a number of taxpayer dollars that would normally go into health services by embarking on this progressive elimination of cosmetic pesticides from the Island.

So number one, our citizens are healthy and our government is able to save money by alleviating some of the pressures on our health system that we incur when we have some of the health effects caused on people that we've learned about over the last few days and which are too many to really get into detail on here. We have a lot of the evidence provided.

The second thing is that we find that pesticides are completely unnecessary. Moving into the 21st century, we have an opportunity now to respond to some of the increasing level of demand surrounding the issue of pesticides. What we're talking about is that when - as demand for clean and environmentally responsible products and surroundings increase - by surroundings I mean, environment, our local surroundings - land values and other economic spin-off effects such as ecotourism will be increasing as economic development will increase.

What we're finding now is that new trends in the 21st century economy are demanding a clean environmentally responsible surroundings and it's an amenity that is invaluable to our society and will bring us, I find, enormous economic benefits as people around the world find out about what PEI has to offer and the safe environment that we have here.

So research to date shows that pesticide use effects are most vulnerable, young children, pregnant women and seniors, from the effects of ingestion of these substances. So we're becoming more aware of these links between our health and the quality of our environment and the effects that pesticides have on us. Moving towards the elimination of all harmful pesticides from Prince Edward Islands landscape is a huge investment in our future.

So we hope that we presented to you a few ideas and we can hopefully have some good discussion about this now and in the future.

Thanks very much.

James Rodd: Thank you, Mr. Chairman.

Chair: Thank you.

Questions? Buck.

Buck Watts: Jim, you mentioned the (Indistinct) that over a ten-year period would be a good time, an ideal time I suppose, to have PEI cosmetic free or completely organic. How did you arrive at that, or how would, say, the agricultural industry on PEI arrive at that or how did you arrive at that? I guess really what I'm asking is, if it's ten years, why wouldn't you say six years or five years? If it's going to happen in ten years' time, why not have it happen in five years' time? I guess that's what my question (Indistinct). You were talking about agriculture in general were you, or were you talking just cosmetic pesticides?

James Rodd: Mr. Chairman, I'd like to clarify.

The Island New Democrats have a agricultural policy that indicates that we

would like to see our position moving from conventional agriculture to organic to take place over a period of over 10 years. The reasons for that are because it cannot happen immediately. With necessary support from the provincial and federal governments for safety nets, for example, we know how limited they are in adequately addressing the need as it presently presents itself. So they're not quick acting. If we're going to move agriculturally to organic, then it's going to take a transitional program to do it.

In order for that to happen, there are going to have to be programs put in place. Certainly, as we move in transition away from pesticides to more natural products to be used for protectants of our crops and so on - and they are out there. It's not as if we have to rely totally on the organophosphates of this world for insecticide sprays. There are things out there that organic farmers are using presently and are getting along very well with, as there are in protectant sprays and so on.

So what we're saying is, from purely from an agricultural point of view, we want to move over a period of time, 10 years. But in particular to what we're discussing here today, the cosmetic pesticides, we would ask the government to enact immediately an Island-wide ban on cosmetic pesticides, and in particular, around our municipalities, a two kilometre buffer.

Now, coupled with that Mr. Chairman, if I still have the floor?

Chair: You do.

James Rodd: During the transition period, obviously within that two kilometre buffer there is going to be a green area that could be agricultural production. It's not limited to agricultural production, that two kilometre buffer. It could be green area, recreation, area, whatever. Then, incrementally, we could move out further into the agriculture community and areas, municipalities that aren't governed under the *Municipalities Act*. Perhaps I'm contradicting myself there, but I do believe there are communities that don't have community organized municipalities. We need protection in those areas as well. There could be senior citizens homes in those areas and that two kilometre buffer would be again be applied in those areas.

Chair: Okay, Jim has a question.

Mr. Bagnall: I notice you said two kilometres. Where did you come up with that figure and how did you arrive at that, based on what facts, or did you just pull it out of the hat?

James Rodd: I wouldn't say we pulled it out of a hat. But certainly, when you're referring to spray drift, when droplets - I think the provincial regulation for spray at the nozzle, the limitation is 20 kilometres per hour. I perhaps stand corrected on that. I don't spray on windy days, but I do know that farmers who have large acreages are required to go out and spray, regardless of the conditions. Since the province doesn't have enough adequate inspectors out there to ensure that that regulation is conformed to, spraying continues, and we all know that that happens in our communities.

So the droplet size - as the wind picks up and those fine droplets in drift can carry for miles, the two kilometres is a protective area, it's a little over a mile. Surely, if we're moving in transition we're putting in the necessary protection when we're spraying: wind speeds, adequate inspectors to ensure farmers conform, and as well, providing the necessary information to farmers about the program of moving towards organic production.

Chair: We got four minutes left. Cynthia, and then I'll go back to you, Jim.

Ms. Dunsford: I'm not intending to stifle any right discussion on the future of agriculture on Prince Edward Island. I do want to bring this back to the motion that we're talking about. That is, how do we implement a province-wide ban on the cosmetic use of pesticides? I understand and I take from what you're saying that the cosmetic piece is part of a bigger transition piece that you see. Am I right?

James Rodd: That's correct.

Ms. Dunsford: If we're to talk about a two kilometre buffer zone with regards to cosmetics, if cosmetic was province-wide, then we're not really talking about buffer zones within municipal boundaries. We're talking about a province-wide ban on the cosmetic use of pesticides.

James Rodd: That is correct. Clarification on that, Mr. Chairman, that is exactly what we're saying.

Ms. Dunsford: Okay. Only because that is the motion we're talking about. You were here the other day talking about agriculture. This is in fact - agriculture to date I don't think uses pesticides for cosmetic reasons. We're talking about the residential use of - or just the cosmetic use.

Chair: Her just expanded on the perimeters, I think.

Ms. Dunsford: Yes.

Chair: Jim, you have a question.

Mr. Bagnall: Just one thing. I notice you never mentioned schools. A lot of schools are out in areas where there are no GICs or out in no-man's-land like out in Bluefield, for instance, Westile. They're outside of the municipalities. Are you talking about two mile -

James Rodd: Mr. Chairman, a point of information. I did read schools, and perhaps it wasn't heard, but the schools is part of our buffer within the jurisdiction of the municipality, or outside a municipality.

Mr. Bagnall: Another question is in that particular thing, have you estimated or did any calculations on how many acres it would take out of production on PEI by putting that two kilometre in use?

James Rodd: No I did not. But, Mr. Chairman, the province has a buffer around Charlottetown, and Miltonvale Park is a municipality within that buffer. It's a buffer that's in place to restrict development. I don't know how it came about but it was made to provide an area for the development and expansion of Charlottetown.

If I could liken our situation that we're presenting here today as something similar to that, I don't know if Charlottetown decided on how many acres they required. What we're saying: two kilometres. I don't know, Mr. Bagnall, what acreage that would take into account, but it would be substantial.

Chair: Cynthia's question.

Ms. Dunsford: I'll just bring it back again if I could, refocus this discussion to the cosmetic use because we're talking about a buffer zone that may not even be applicable if we're talking about an Island-wide, province-wide, ban on cosmetic use of pesticides.

Chair: Are you talking -

Ms. Dunsford: I'm just trying to bring it back to - this isn't a discussion about -

Chair: No. Are you talking two kilometres around all municipalities and schools for cosmetic pesticides?

James Rodd: That is correct.

Chair: Okay.

James Rodd: Mr. Chairman, if I might, just in clarification, a pesticide, whether it's used for cosmetic purposes, can and is being used for agriculture purposes. There is no differentiation.

Ms. Dunsford: I understand, but the motion on the table is for cosmetic use. I guess if I could just remind everyone, including the committee and everyone that is involved, the idea here is to come up with a plan to be able to present an implementation of a province-wide ban of cosmetic use of pesticides. If this is a doable thing, if this is something that can be done at that level, then I encourage us all to please contribute to that solution. It's not to stifle any discussion about the bigger picture as well, but I do want to keep bringing that back to really what the motion is about.

Chair: Yeah, I know, but I think he was relating (Indistinct).

Ms. Dunsford: I understand but it's just -

Chair: I think Paula's got the last question and then we're going to wrap.

Ms. Biggar: It wasn't necessarily a question, it was just a follow-up to the comment about the schools that are out in the rural areas of PEI that generally are surrounded with agricultural farm land. I don't think we're talking about cosmetic pesticides in those areas necessarily, but it would impact -

James Rodd: Greatly.

Ms. Biggar: - depending on what the regulations are on what's happening around those zones.

Chair: Any final comments there?

I just want to sum up. Actually, in your presentation, you're the first group, I think that's put a distance around or a subscribed area of two kilometres.

James Rodd: Mr. Chairman, I think trying to be as clear as possible here, there is an urban-rural overlap that's occurring in our presentation.

I recognize and respect what you're saying. But simply put, if there's a school in the rural area - and government has a responsibility to the protection of the children and the people that work in that school. A two kilometre buffer would be a start around that school. It's something that we don't have presently. Whether or not that school uses on its premises cosmetic pesticides, that would be eliminated as well.

Chair: Okay, I think we are over time. (Indistinct) anyway.

James Rodd: Thank you kindly for your questions.

Chair: Appreciate your input. Thank you for the presentation.

Our next presenter is going to be Joan Doyle. There are some overheads here so we'll get set up for this. Can everyone see that fairly well? Okay? Good.

I'd like to welcome Joan Doyle to the presentation this afternoon. You have about 15 minutes we've allowed for you. I will give you about a five minute heads up when you're coming near the end of your time. I would ask that you would introduce yourself for the sake of Hansard and then you can go right into your presentation. The last five minutes I hope we can have some discussion back and forth.

Joan Doyle: Thank you.

Mr. Chairman, and committee members, I'd like to thank you for giving me this

opportunity to present my paper to you concerning the use of pesticides. My perspective will be from a kinship with the earth perspective.

The lens that I will be using in looking at this question of cosmetic pesticides is spirituality. I place the use of cosmetic pesticides in the larger context of the relationship between the human community and the larger earth community. I've often wondered why much of what we as a human species have considered to be progress has ended up as devastation severely damaging our air, our water and our soil.

Looking at legislation about cosmetic pesticides from a spiritual perspective, I imagine that in the past an underlying understanding of the world would look somewhat like this on the overhead. In this model, our understanding of how the human fits into the scheme of things is pictured as a pyramid organized in many separate layers moving down from the most important to the least important. Using this model, the human species believes that the earth is intended to be there for our uses. Using this model, we make decisions according to the benefits we see for ourselves without much real regard for how our decisions might affect the air, the soil, the water or the insects and animals, or how the degradation of our life-support systems will affect generations to come in terms of health, economy, or spirituality.

In contrast to this, the new cosmology on this second overhead leads us to a very different understanding of our relationship with the earth. In this picture all of creation is one community and we humans are one species among many. Our own well-being clearly depends on the well-being of the natural world around us.

Using this model here in PEI we would see ourselves as one single interconnected community with rivers, fields, hills, sunshine, rain, grass, trees, and all modes of being. We would sense that in some way we are all needed by one another, the winged, the finned, the four-legged, the two-legged and the no-legged. We would see that in a very real way our health, our economy, and our spirituality depends on the vibrancy of this community. To quote Thomas Berry: We cannot have well people on a sick planet.

In my own life I have for many years grappled with the enormous challenge of coming to this new sense of our place on this planet, a sense of belonging to a larger community called the cosmos. In this understanding, not only is the human family one community, the whole ecosystem is one community. So we humans can say to the water and to the soil and the air, to the insects and the birds and to the animals: We can't say we don't need you.

If we are to regain the prosperity of pure air, water, and soil, we need an understanding of the whole ecosystem being one community. It is in the context of this understanding that I present to you what is most important to me as I look at the issue of cosmetic use of pesticides.

I would like to express here four wants:

One, what I want is healthy soil and a healthy ecosystem. We cannot be concerned with respect for one form of life and not for another;

Two, what I want is a way of thinking about progress that would include the whole earth community, our species and all the other species affected;

Three, what I want is a way of problem-solving on this issue that would make decisions in the light of what's best for our children's children and for generations to come after them;

Lastly, what I want is the way of caring for our lawns and green areas that ensures the health of the soil and the health of the humans and all other species.

What I would like to avoid is harm to our Island ecosystem.

My recommendation to this committee is a province-wide ban on the cosmetic use of pesticides. I am deeply concerned about our well-being, that is, the life and health of the whole eco-community of human and non-human on PEI. It is my hope that this presentation will give you some background to help you understand why I am joining my voice with so many others to ask you to recommend a ban on the cosmetic use of pesticides.

I consider this to be one important step forward in the creation of a life-promoting trend on PEI. As we are all aware, we are approaching the feast of Christmas and Christmas is a time of giving and sharing, a time of wishing peace and goodness to all. What could be more in keeping with this season than to work for the good health and safety of our ecosystem on this little Island?

I would like to close with a quote from Thomas Berry, a cultural historian and an eco-theologian. I quote:

The basic problem before us is how to recover a sense of a sacred universe. We cannot save ourselves without saving the world in which we live. There are no two worlds, the world of the human and the world of the other modes of being. We will live or die as this world lives or dies. The human community and the natural world are a single community with a single purpose. Our spirituality depends on the world about us. Indeed, the natural world is our primary revelation of the divine. So integral is our inner world with the outer world, that if this outer world is damaged, then the inner life of our souls is diminished proportionally. We need a spirituality that is concerned with justice for all for all those other components of the great earth community.

End of quote.

Thank you again for this privilege to share with you my deep concerns and my hope that you will recommend a province-wide ban on the use of cosmetic pesticides.

Chair: Thank you very much for your presentation. You're right on the five-minute time frame.

Do you have any questions? I might start off with a question. You talked about the spiritual aspect of this. On the first cosmology you had God at the top. In the new cosmology God was not there at all.

Joan Doyle: I said in it that the creation is our first experience of the presence of the divine. So the divine is in all creation.

Chair: Okay, it just seemed like it was left out of the illustration.

Joan Doyle: It was out of the second one but -

Unidentified Member: (Indistinct).

Joan Doyle: Yes.

Chair: I was quite disappointed to see that, especially when a couple of my former teachers were doing that.

Joan Doyle: It is not left out from my point of view. I see God in all of creation, that's why I bring this from a spiritual point of view, that God is there. The first scriptures were the scriptures of creation. Before we had the printing press and the Bible and all of those sacred scriptures from the various traditions, the people found their loving creator in creation. That's our very first scriptures, creation. The second scriptures

are the holy books, and the third scriptures are our conscience.

Chair: Thank you.

Are there any other questions?

I'm going to ask you a little bit about your project there - I think it's somewhere on line here - the land around the monastery there, Mount Saint Mary's. I saw you put a pond in there and things like that. Is there more work to be done on that? Is this drawing - is that project - it seems to be on the same wavelength as what you're speaking about here.

Joan Doyle: I'm not able to answer that at this time, Alan.

Chair: Okay. Any other questions or comments?

I can't get you to talk from back there, sorry.

Joan Doyle: Thank you.

Chair: Thank you very much.

We're going to take a one minute break. The next group is the Green Party. Sharon Labchuk.

[There was a short recess]

Chair: We'd like to welcome the Green Party. I'd ask you, Sharon, to introduce yourself for the sake of Hansard. Again, I'll give you a five minute heads up when your 15 minutes is drawing to a close and we'll have time for some questions.

Sharon Labchuk: Hi, my name is Sharon Labchuk. I'm the Leader of the Green Party of PEI.

I want to thank Cynthia for bringing this issue to committee. I'm going to try and get through my handwritten notes here. My computer fried and writing skills deteriorate significantly when you're used to using a computer.

It's been a long time coming, this move to the committee stage. I made my first presentation on this issue to the pesticides advisory committee in probably 1990 or 1991 under Premier Joe Ghiz and at the time it went nowhere. I've made similar presentations to other committees under Premier Binns - also went nowhere. We went from post to pole over the years with various levels of government dickering over who was going to take responsibility of this issue, with nobody wanting to take responsibility for the issue.

Islanders were some of the first people in Canada to ever raise the alarm on cosmetic pesticides. I think we were the first, actually. Now we're trailing the pack with bylaws having been enacted with various bits of legislation here and there across Canada in 100 and some communities, including the Province of Quebec.

Fortunately, for this committee here, those jurisdictions have done a lot of the research and they've got a lot more resources, I think, than you do in terms of staff, in terms of money, to look at the information, to suss it out and to evaluate it. So you're not starting from square one, and I don't think there is any need to get bogged down with all of this scientific information available because there is an awful lot and you can get sidetracked in the details.

You're going to be getting lots of copies of scientific studies from people wanting a ban, as well as from the pesticide corporations and lawn spray industry. You need to bear in mind that anything that comes from industry is not credible and that's for the obvious reasons that they stand to profit from the sales.

The pesticide industry is known to lie, to

manipulate and suppress data from studies. That's a fact, that's on the record. One of the most widely known cases is Dupont. Dupont produced a pesticide, an agricultural pesticide. It killed crops all over the United States. It was a well-known case. They went to court. Dupont lied on the stand. In his summation, the judge said that he never seen the likes of the lying that went on under oath by Dupont. Dupont, by the way, was fined hundreds of millions of dollars, they were found guilty.

Closer to home, I used the environmental petition process - which is a process through the Auditor General's office, and specifically the commissioner for environmental and sustainable development - I used that process to take to task a number of companies, including Syngenta, which is the biggest pesticide corporation in the world, Bobby Lawn Care, local and weed man locally, for false advertising.

Under the *Pesticide Controlled Products Act*, the federal act, it's illegal - if you're a producer or user of these chemicals - to state that these chemicals are safe, that they're green, that they're environmentally friendly, and even that they're approved by Health Canada or the federal government. Last week when I was here I saw that go on a number of times. People were saying: Are they approved by Health Canada, or they are approved. They're not approved by Health Canada. Health Canada hasn't approved them because they're not safe.

In fact, lawn spray companies can't even tell their customers what is in the products they're using. None of us have any right to know what is in those formulations of pesticides. The only people that know what's in there are the manufacturers themselves and some select people in the higher echelons of government and Health Canada. Those other ingredients are considered trade secrets. So we're allowing companies to go into our communities and to spray stuff. They can't even tell us what's in it, and neither can any of you, and neither can anyone in our own department of environment tell us what's in there because they don't know either.

When you buy - or when a pesticide company uses a formulation, anybody - the formulations consist, as you probably know, of an active ingredient and many other ingredients that are called formulants or sometimes inert ingredients. These inert ingredients are trade secrets. We know what they are. I have the list of what they are. There are some 3,000 allowed in Canada and they range from things as innocuous as water and peanut butter to some of the most toxic chemicals we know. In fact, the New York State attorney general's office some years ago produced a widely publicized report on these so-called inert ingredients in pesticides and called them some of the most toxic chemicals we know, and they are. Sometimes they are active ingredients that are banned for the original purpose and yet they're allowed to be used in a formulation as an inert ingredient.

So when a company wants to register a pesticide they do the testing, usually on rats. The way it works is Health Canada looks at the data and makes some sort of a determination. Health Canada doesn't actually do the testing. So here we go again. We've got corporations who make ungodly amounts of profit off of these chemicals actually doing the testing and bringing us their data, and we have to believe it for the most part. For the most part they test their chemicals looking at those active ingredients in isolation. It's only lately that they've begun to look at what happens to a test animal when you use the whole formation. But there are many chemicals on the market that have only been tested looking at the active ingredient in isolation.

So what happens when a human or an animal is exposed to who knows how many

chemicals in a cocktail? We don't know that, and it's impossible to determine unless you test a human with that entire cocktail, which of course it's not going to happen.

So the effects are something that we have to observe over time. That means we have to observe damage to human health or the environment before alarm bells are raised, and that's the way it works in Canada. They bring a new product on the line, we start using it, people start noticing problems, and sometimes it's decades before the agitation from the population manages to have some sort of effect on the regulators and the stuff is banned. That's usually what happens. Chemical after chemical is on the market for a certain period of time and then it's banned.

There is a new area of study in pesticide investigations and that is low dose exposure. Health Canada and the pesticide industry are still clinging and promoting to the idea that the dose makes the poison. This is entirely discredited by scientists, yet they cling to it. It's not the dose that makes the poison, it's not whacking rats with large doses of poison and seeing what happens and then backing off to the point where they observe no effects. That's standard procedure.

Now scientists are finding that they never dreamed that low dose, ultra-low doses of pesticides, would have their very own set of health consequences and different sets of health consequences.

I think related to PEI, one of the most important sort of discoveries in this area was by Dr. Brian Dixon. He's an immunologist at the University of Waterloo. I came across his study in 2003. He was looking at animals, mammals - we're mammals - and the effects of pesticides on other things. As an aside, he discovered that these chemicals in minute quantities, quantities that are so small they could not even be measured until very recently, he discovered that those minute quantities of pesticides had the effect of shutting down the immune system in the mammals he was looking at.

He's an immunologist and he said the effects - and he was quoted in the *Globe and Mail* saying: The effects were just like the effects I observe when we administer drugs to patients about to undergo organ transplants, because we want to shut their immune systems down. He said: It was a very serious situation in that, when people are exposed to low doses, their immune system shuts down. You can then be susceptible to harm or even death from very common illnesses that would normally not kill you, like the common cold for example.

So you look at PEI with our high rates of cancer. We know that 80% of what we spray on PEI is classed as cancer-causing by various agencies. But what about the effect of a population exposed to low dose pesticides that shut down your immune system? What effect is that having on the population of Prince Edward Island, including in our urban areas with cosmetic lawn pesticides? I had an exchange with Dr. Dixon this summer just to confirm that he still stood by his research and he said he did.

Another area of study is the neurotoxic effects of pesticides in children. This is a brand new area as well. Pesticides typically were not tested for neurotoxic effects. The Physicians for Social Responsibility published a ground-breaking report, the first of its kind, in 2000 called: Polluting our Future. The first look at industrial chemicals and what they're doing to our children in terms of neurotoxic effects or effects on the brain, poisoning the brain essentially. What they found is that many industrial chemicals, including many of the pesticides on the market on PEI, including 2,4-D, the main lawn spray chemical, is neurotoxic. These chemicals have the effect of lowering IQ, causing learning disabilities, ADD, behaviour problems, aggressiveness.

Earlier this week, a couple of days ago, we had an announcement that Prince Edward Island children scored the lowest in the whole country on I think it was math and reading. So I started to wonder, what's the deal there. Do we have bad teachers? I don't think so. Is the curriculum different? Probably not. So what else is going on in Prince Edward Island that would cause our kids to have the lowest scores in the whole country in these areas?

You have to wonder, don't you? The air is full of neurotoxic pesticides on PEI. Between agriculture pesticides and the 2,4-D and the cosmetic lawn pesticides, the air is full of neurotoxic chemicals.

Chair: We're at the five-minute warning, okay?

Sharon Labchuk: Okay. To me this is a social justice and environmental justice issue. The air belongs to nobody, it's shared by everyone. Pesticides, once released into the environment, cannot be controlled, they drift on the wind, they're in the rain, they're in the fog, they're in the clouds. We can measure pesticides from Africa in the air in North America that have come across on the winds. We know that these pesticides and other industrial chemicals are drifting north, getting into the fat of the animals, ending up in the breast milk of Aboriginal women, and into the bodies of their children. Their children in some cases, their immune systems are so compromised that they can't even be immunized.

So there are lot of things that we can do as a society. There are a lot of things that we do as a society that are stupid. They're stupid because we're hurting ourselves, we're hurting the environment. Spraying pesticides on lawns is one of these stupid things. Fortunately, the problem is easily solved by banishing these poisons from the Island. I don't think that there'll be doubt in any of your minds after you become familiar with this information that these chemicals are toxic and they've got no place in our communities. With more than 100 communities already taking action, including the Province of Quebec, you're got any number of groups. You've heard about the Ontario College of Physicians, you've heard about the Canadian Association of Physicians for the Environment. Even the conservative Canadian Cancer Society is calling for a ban.

So I think your choice is very clear here. But the name of the game, I think for you guys, is to figure out what's in the best interest of the Liberal Party of PEI. Islanders, in my opinion, are some of the most informed people on the use of pesticides. They are mobilized, the momentum is built, and they are ready to roll. You have to decide now what you're going to do with that momentum. I think it's going to be political suicide for you, as a committee, to ignore what's going on in PEI, to ignore the will of the people, and to advocate for anything but a complete ban on these chemicals.

A complete ban also means a ban on the sale of these things in stores. If you're banning them, if you don't think they're safe to be used in the province, they shouldn't be in the stores either. The ban should take effect this year. If these things are toxic and these companies haven't figured out a plan B when the writing's been on the wall that their industry is going out the door, that's their problem, not ours.

Thank you.

Chair: Thank you very much for your presentation.

Questions? Cynthia first.

Ms. Dunsford: Just to kind of go back to the talk about the inert side of it, because so much about what we read and studies that

have been done by whoever talk about the active ingredients in these products to spray lawns with. You talked also about this kind of low dose comparison or this using low dose to kind of justify the use of chemicals on lawns.

Do you know of any kind of up-to-date - you have a list of inerts that are dangerous. But is there any kind of study out there that you know of, Sharon, that addresses the inert chemicals in these compounds?

Sharon Labchuk: What you need to do is get a list of the chemicals from Health Canada, and then scan - I mean you have to scan the list. There has been no study looking at every single pesticide. You just scan the list and then just do a bit of research on the chemicals themselves. But you know what? I think that's a diversion. I think the evidence is so overwhelming in favour of banning it that - why waste your time doing that, you know?

Ms. Dunsford: I understand. It's one of those kind of issues where regardless of what scientifically has been proven or not, if people feel that there's a danger to their health and their children's health and their animals and their environment around them, then that's what we're reacting to. That's why this motion came forward, in fact.

It is a reaction to that and not so much that the Liberal Party or that I or that anybody on this committee went out and did a study. As you stated earlier on, the studies have been done. The intention of this is not necessarily to duplicate anything. It's to move forward with ideas about how we would do that, how would we implement. You're suggesting now - and I know perhaps a few people might kind of say: Okay, well, it's easy to say let's do it right now, but then we take into consideration, yes, you're right, maybe this has been coming down the line, but until legislation has been put in place, nobody is going to make a change and we all know it.

Sharon Labchuk: It's an easy thing to do. I mean, it really is an easy thing to - nobody ever died from not putting chemicals on their lawn. If people can't grow a lawn without chemicals, then they need some re-education on how to do it.

You can leave your lawn alone for any number of years and nothing is going to happen to it, it's just going to keep growing, and it's going to be fine. But your neighbour's kids are going to be impacted if you keep spraying pesticides. I think that's the bottom line. Who's interests here do we care more about? People who don't know how to take care of a lawn without forking out money to somebody to come and pour poison on it, or the lawn care industry who has seen the writing on the wall for years? If they're not involved in making alternate plans, too bad.

Ms. Dunsford: Do you see the benefits of an education piece to this that goes along with it at the same time or precludes it or -

Chair: We got about 30 seconds. I'll allow you to sum it up and answer that question if you would. That'd be great.

Sharon Labchuk: Sure, yeah, definitely education. Education in why do you need a lawn in the first place might be a good thing, and why aren't you growing something else if you're having such a problem growing grass?

Definitely education. Gardening is one of Canadians most favourite pastimes and people would definitely appreciate more information on how to grow a nice lawn without the use of pesticides, for sure. There's lots of that information around, and you guys know that.

Chair: Thank you very much for the presentation.

Sharon Labchuk: You're welcome.

Chair: Super.

Our next group is a multi-media presentation, from what I understand. O Beautiful Gaia Singers, I'll ask you to come forward.

I'd like to welcome the O Beautiful Gaia Singers. We have 15 minutes lined up, unless you're really good, I may stretch it a little bit. I'd ask you to introduce yourself for the sake of Hansard. I'll give you a five minute notice when we're almost finished.

Melissa Mullen: Okay, great. My name is Melissa Mullen. I am one member. We are some members of the PEI group of O Beautiful Gaia. We'd like to thank the Chair and the committee for taking the time to hear our presentation today. We want to express our support of an Island-wide ban on cosmetic pesticides.

Gaia, meaning land or earth, is the primal Greek goddess personifying the earth. We are part of a larger group of women from across Canada and the United States inspired by the vision of singer-songwriter Carolyn MacDade. Many of us have participated in the recording of two CDs. *O Beautiful Gaia* was released in 2003 and 100% of the sales of this CD, which has raised about $200,000, has been donated to environmental groups in Atlantic Canada, Atlantic New England, and the Great Lakes Basin. The other CD, *My Heart is Moved*, was released last month in Charlottetown and across Canada and the United States. Much of the music on this CD is inspired by the Earth Charter, which we will introduce to you shortly.

But first, we're going to sing a song. Our first song is from the *O Beautiful Gaia* CD and it's called "Listen to the Voices." The words are by Mary Margaret Parent and the music by Carolyn MacDade. So this is "Listen to the Voices."

Listen, listen to the voices
That beg to differ from the rest
Listen, listen to the voices
That beg to differ from the rest

The beauty of each being
The power of our truth
The wisdom of our experience

Sustain and make us community
Sustain and make us community

May the voices gathered here become sustenance
May the voices gathered here become transformation
May the voices gathered here be for all

Michele Jay: Hello everyone. Thank you. I'm going to tell you a little bit about the earth charter.

Chair: Can you introduce yourself, Michele, please?

Michele Jay: Sure. Michele Jay. I'm a member of the O Beautiful Gaia group. I'm very pleased - I'm sorry she's been a little bit disruptive for some of the speakers - but I think it's a very important thing to have my daughter Bella here because this is what we're talking about, the future, not only for ourselves, but for our children and our grandchildren and great-grandchildren.

So the Earth Charter sprang from the Brundtland commission, otherwise known as Our Common Future, in 1987. At the Rio Convention on the Environment in 1989, the charter was received with interest but there was no formal, global endorsement. In 1997, Canadian Maurice Strong and Mikhail Gorbachev formed an Earth Charter Commission with the objective of bringing the charter to the global community. This effort has attracted thousands of organizations and communities who've signed onto the Earth Charter and use its principles in their planning and action. By

now, it is recognized as a global consensus on how we should relate to and treat the earth, our home.

We have copies for each of you as committee members of the International Earth Charter. The next song we're going to sing is based on a line in the preamble to the earth charter.

"We Must Join Together"

We must join together to bring forth
a sustainable Global Community
founded on these principles:

Respect for nature
Universal human rights
Economic justice
And a culture of peace

Respect for nature
Universal human rights
Economic justice
And a culture of peace.

Michele Jay: We're trying to mix up our presentation here with a little bit of our singing.

Just to say, we're not a singing performing group all the time, we're not a choir or any kind of professionals, but we use music as a way to express our commitment to the earth and our love for the earth and to protect it.

So just a little more about the Earth Charter. It contains many clauses that can be applied to the issue being studied by this committee, that of cosmetic pesticides. In the preamble it states: We stand at a critical moment in earths history, a time when humanity must choose its future.

Your committee has been given the task of making an important decision regarding the future of PEI for all Islanders. By recommending a ban on the cosmetic use of pesticides on PEI, you will be taking steps to respect both nature and human rights. Our natural environment will be less burdened by toxic substances and human rights will be respected by protecting people against unwanted exposure to chemical sprays.

The Earth Charter contains 16 main principles organized into four categories. They are; respect and care for the community of life; ecological integrity; social and economic justice; democracy, non-violence and peace.

Each of the 16 principles is further divided into subsections, and two of our members are just going to read through some of those for you as well right now.

Chair: Can I get you to introduce yourselves before you start too, please?

Louise Burleigh: I'm Louise Burleigh. The first category is respect and care for the community of life. Under that category the first principle is respect earth and life in all its diversity. An action on that first principle is to recognize that all beings are interdependent and every form of life has value, regardless of its worth to human beings.

Cynthia Hickox: I'm Cynthia, the other Cynthia, Cynthia Hickox. This would include recognizing the value of dandelions and other edible weeds, considered by some to be undesirable.

Louise Burleigh: Another action would be to affirm that with increased freedom, knowledge and power comes increased responsibility to promote the common good.

Cynthia Hickox: As awareness grows over the harmful effects of many cosmetic pesticides, government must respond by quickly removing harmful substances from the public domain.

Louise Burleigh: Another principle under

that first category is to secure earth's bounty and beauty for present and future generations. An action under that is to recognize that the freedom of action of each generation is qualified by the needs of future generations.

Cynthia Hickox: As a society, we must do everything we can to protect not only today's citizens but also those of future generations.

Louise Burleigh: Second category is ecological integrity. One of the principles under that category is to prevent harm as the best method of environmental protection. When knowledge is limited, apply a precautionary approach. So an action under that would be to prevent pollution of any part of the environment and allow no build-up of radioactive, toxic or other hazardous substances.

Cynthia Hickox: A ban on cosmetic pesticides will reduce the amount of toxic chemicals which are increasingly showing up in our waterways, in women's breast milk, and even, as a result of test by environmental defence have shown, in our federal politicians' blood.

Louise Burleigh: A third category is social and economical justice. A principle under that category is to ensure that economic activities and institutions in all levels promote human development in an equitable and sustainable manner. An action would be to require multinational corporations and international financial organizations to act transparently in the public good and hold them accountable for the consequences of their activities.

Chair: We're at the five minute notice, okay?

Cynthia Hickox: The chemical industry seems to believe that it is acting in the public good. We wonder if they would search for less toxic means of achieving the same results if they were financially accountable for the treatment of all the ill effects attributed to cosmetic pesticide use.

Louise Burleigh: Maybe we should - you've got this sheet and there's just one more principle, and you can read it to yourself so that we can wrap it up.

Chair: Sure.

Anne Mazer: Anne Mazer. Finally, in the conclusion of the Earth Charter, entitled The Way Forward, it states: Life often involves tension between important values. This can mean difficult choices.

Today, you have a choice. The values in question are the cultural notion of the perfect lawn versus the desire of the strong majority of Islanders who wish to live without the worry of environmental contaminants in their neighbourhoods.

To conclude, we would like to thank you again for hearing our words and our songs. Hope they went to your hearts, and hope that you will consider the spirit of the Earth Charter in your deliberations. We have some copies of that for you.

Our final song was composed by Nancy Nordlie and is also based on the Earth Charter, principle 16(f) in The Way Forward. The name of the song is "Peace is the Wholeness."

Peace is the wholeness created by right relationship
With oneself, with others, with earth
And the larger whole

To seek a new beginning
Requires a change of mind and heart
We must deepen
We have much to learn.

[The two verses were sung again, at the

same time]

Chair: Thank you very much. I'd ask those in the back to break the protocol with me and maybe we'll give them all a round of applause.

[There was applause]

Chair: Really appreciate that. This job's not so tough when you got to deal with things like that. Maybe we could have you back again when things get a little more stickly. It's great. Super. Once again, thank you very much.

Our next presenters are the Cooper Institute.

I'd like to welcome the representatives from the Cooper Institute. Again, we have 15 minutes or so and I'll give you a five-minute heads up when the time is drawing to a close. Hopefully we'll have some time for questions. I'd ask you to introduce yourself for the sake of Hansard and then you can go right into your presentation.

Marie Burge: My name is Marie Burge.

Maureen Larkin: Maureen Larkin. So on behalf of Cooper Institute we thank you for the opportunity to present our views on this important topic.

Cooper Institute is an education and community development centre located in Charlottetown which works with communities to develop programs that are people-oriented, democratic, ecologically sustainable, and inclusive. In this presentation we are urging the government of PEI to introduce legislation banning the use of cosmetic pesticides.

We have five sections or five reasons for asking for this legislation: one is the most obvious, that pesticides are poisonous; number two, there are effective alternatives to cosmetic pesticides; three, passing legislation banning cosmetic pesticides represents the views of a growing group of people, of citizens; four, the legislation would build on similar initiatives across the country; and lastly, government has the obligation to protect the health of the citizens.

First part, cosmetic pesticides are poisonous. A pesticide is defined as any substance used to prevent, destroy, repel, attract, or reduce pest organisms. Cosmetic use means that the pesticide is used for reasons that are primarily aesthetic. In this brief or this issue, we are focusing on the outdoor use of cosmetic pesticides in the maintenance of lawn, turf, flowers and ornamental plants, trees and shrubs.

We want to emphasize in this brief that pesticides kill living things, not just the pests at which they are targeted, but other living things around them such as other insects and wildlife. As other presenters have said, a typical pesticide consists of one active agent and a number of carrier chemicals that are generally portrayed as inert ingredients. So one example of an active ingredient is 2,4-D which is often found in Killex and Weed and Feed products: 2,4-D is suspected of stimulating cancer development, delaying fetal development and promoting mutations. It was banned in Sweden in 1989. The inert ingredients usually make up 90 to 95% of the product and can contain some of the most dangerous substances known. They are considered trade secrets, and although in many cases they can be even more toxic in active chemicals, most consumers are completely unaware that they exist.

It's true that pesticides are registered by the Pest Management Regulatory Agency before they are sold and this often is promoted saying that they are safe. But in order for a pest control to be registered, PMRA must decide that it poses no unacceptable risks to human health or the

environment. However, there are lots of concerns about the way the PMRA assesses risk. They use animal models which many scientists argue are inadequate for assessing human risk. Some researchers have expressed concern that the PMRA studies don't assess the cumulative risk of exposure to more than one pesticide at a time.

Repeated exposure to pesticides have been linked to neurological problems, brain and lung cancer, immune suppression, leukemia, Parkinson's disease, kidney damage, non-Hodgkin's lymphoma and reproductive disorders, including endocrine disruption, low sperm count, and sterility. Many epidemiological studies suggest that registered do present human health risks such as cancer, Parkinson's disease, and birth defects.

Marie Burge: Next we look at the issue that there are effective alternatives. There is no lifesaving reason for using cosmetic pesticides. The use of pesticides only provides a short-term solution to pest control, and much of the urban pesticide use is for cosmetic purposes, that is, lawn care. There are effective and safe alternatives to pesticides and we need to seriously consider the phase out of pesticides in all urban areas, especially where children might be exposed to a health risk, such as in schools and in playgrounds.

A perusal of the ads put out by lawn care companies indicate that most companies have organic care options for lawns and gardens. In the City of Charlottetown, parks and recreation staff have taken significant steps in reducing and/or eliminating the use of cosmetic pesticides on municipal land. Other than using a fungicide on the city's lawn bowling greens, no pesticides or growth retardants have been used by city staff in any department in over three years. City staff use preventative measures such as top dressing, over seeding, aerating, de-thatching and fertilizing. These examples are evidence that we can have healthy green spaces without the use of cosmetic pesticides.

Regulations to ban cosmetic pesticides represent the view of a growing group of citizens. There is something that is really important that you've heard already this afternoon a number of times. First of all, we are recognizing that this isn't a one party committee, that this is a committee of the Legislature. It's really important for us to bring the point to all policy makers that the people of Prince Edward Island are very smart, and that many of the things that we are expressing here are being confirmed by people out through the community.

You mightn't hear it when you go door to door because people talk about other things to you when you go door to door. But we do hear people talking right from their heart about the issues in their community. Being poisoned, it's quite foremost in peoples minds, so it's not a hard sell, because it represents the view of a very large group of people and it's growing.

I don't think ten years ago, like Sharon was talking about, that you'd have a group of women coming in and singing about this issue or that we'd have the variety of presentations. That we wouldn't have been told that it's a spirituality that's challenging us. So new things are happening and they're really wonderful.

If we were to look at PEI and place it on a spectrum, we would say there are three main categories probably in relation to this issue. On one end there is a small group who are very vocal opponents of a ban. Then there is the middle group - almost any issue we can see this - they don't say one thing or the other. You think that they don't care, perhaps. Then there's another group that is quite vocal and would in fact, express their opinion quite strongly, like you've heard today.

We believe that behind us there is a strong movement to say that we have to go in this direction. There is no other direction to go in.

There are many examples of Islanders using their democratic rights to protest the use of pesticides, both for cosmetic and commercial uses. We have to take those seriously. There was a public outcry and dozens of letters to the editor announcing the fish kill in the Dunk river which resulted from the use of pesticides. Recently the Eastern School Board terminated an agreement with a farmer who was leasing land adjacent to a school because he was spraying pesticides on his land. The awareness of harm caused by pesticides and the organized opposition to pesticide use has grown and it's grown because of these democratic actions.

So we urge the PEI government and the whole Legislature to be on the correct side of this issue and introduce and support legislation unanimously that would ban pesticides in PEI which are used for cosmetic purposes only.

Maureen Larkin: Pesticide legislation would build on many similar initiatives across the country, so it's not inventing the wheel, it's something that's been done in many communities, and so we feel that it's building on these initiatives. Over 127 communities have adopted pesticide reduction bylaws in various provinces in Canada. The pesticide reduction bylaws have a history of 17 years and withstood enough a number of court challenges. In Quebec it's gone all the way to the supreme court and the court has upheld the bylaw. In 2001, Halifax introduced a pesticide ban. I understood that a woman from Halifax was here last week talking about the effects of that.

So in PEI we have a somewhat unique position regarding the responsibilities of the municipalities in the area of health and environment. As an offset to the loss of power related to real property taxation, the provincial government has assumed responsibility for areas such as public health, environment, waste management, and education. For this reason, it wasn't effective to just have a bylaw in Charlottetown but to move it into the whole Island to ban pesticides at the provincial level.

Banning pesticides protects the health of citizens. Our government has an obligation to protect the health of citizens and of the environment. The recent report from the pesticide ad hoc committee of the City of Charlottetown indicate that there are many health advocacy groups in PEI as well as across the country and they're calling for a ban on cosmetic pesticides. For example, the Medical Society of PEI, Canadian Cancer Society, PEI Advisory Council on the Status of Women, the Canadian Lung Association, Autism PEI, Canadian Public Health Association, and Learning Disabilities Association of Canada.

So I'm thinking, what Cynthia was asking for, an implementation plan, that these would include hearing those voices and expanding the voice of those voices because it's a fairly large group of people.

Chair: We're at the five minute line okay.

Maureen Larkin: There is a growing evidence of linkages between chronic health problems and pesticide exposure. As a person living with Parkinson's, I am concerned about the neurological consequence of exposure to toxic substances such as pesticides. Parkinson's disease results from the loss of dopamine producing cells in the brain. While there is no definite proof as to what causes the death of these cells, there are environmental and genetic theories about the cause of this disease. The advisory committee of pesticides, which is

the European counterpart of PMRA, acknowledges that they have noted an apparent consistency of epidemiological reports linking Parkinson's disease with pesticide exposure. We know that Parkinson's disease is growing in our province.

Marie Burge: In conclusion, let us review the main reasons why legislation banning cosmetic pesticides makes sense. Pesticides are poisonous and are capable of killing all living organisms, not just the ones at which they are targeted. The elimination of cosmetic pesticides is reasonable because their presumed benefit is far outweighed by their potential harm. Legislation to outlaw cosmetic pesticides represents the views of a growing group of citizens in Prince Edward Island and across Canada.

Banning cosmetic pesticides in Prince Edward Island would build on similar initiatives across the country and it is the responsibility of governments and to all people involved in policy making to protect the health of citizens and the environment.

We ask the Government of Prince Edward Island to take leadership and pass legislation banning cosmetic pesticides Island-wide. At a time when we are experiencing an environmental crisis, and many signs of deterioration in the natural resources of the earth, we need our politicians and all policy makers to have a long-term vision. Now is the time for action, like non other.

Chair: Thank you very much.

Paula has a question.

Ms. Biggar: Yes. Just in regard to your presentation, you say that the Town of Hudson, Quebec in 1990, passed their bylaw. Do you have any statistics that correlates any reduction in health issues in that area that would correlate to the fact that they did put the ban on?

Maureen Larkin: I don't have it right here, but maybe the report of Charlottetown - they did a very extensive report, they may have some information about that report.

Marie Burge: It's a really important question.

Ms. Biggar: Okay, thank you.

Marie Burge: It may be too soon. Because it takes us a long time to get poisons, but it takes a long time for us to be detoxed as well.

Chair: Cynthia.

Ms. Dunsford: I think last week too we did discuss the very topic in that - not so much there is a study, there has been no contained study done like that. We know that there are some municipalities and regions who have banned cosmetic pesticides and then, without an actual study focused on that one area, it's hard to gauge what health changes have occurred, say, within a 10- or 20-year period. If it's not a contained study, then we don't know, for instance, a health issue might have improved or gotten worse because of cosmetic pesticides, considering that there is so many other factors involved to why somebody's health might improve or not.

So I think we did cover that at another date and kind of came to the conclusion that it is difficult to gauge when there isn't a contained study that we can -

Marie Burge: And there isn't a base line.

Ms. Dunsford: That's right.

Chair: We're just about up to time. Do you want a couple of seconds for a final summation?

Marie Burge: No, just that we wish you well, because this is a great moment. I don't

think I've had a moment like this before. I've talked a lot about - when we started Cooper Institute in 1984, we began with a whole program that had to do with sustainable development. People look at you and glaze over in those times. I don't notice you glazing over today, so I'm really happy about that.

Chair: We really appreciate you coming forward and bringing your presentation. Thank you very much.

Our next presenters are Kool Breeze Farms. Take about a two minute break here. We're about half way through here. So we'll come back in about two minutes, okay, while they're setting up.

[There was a short recess]

Chair: I'd like to welcome Kool Breeze Farms. We have, again, 15 minutes or so and I'll give you a heads up when there is about five minutes left. I'd ask you to introduce yourself for the sake of Hansard and those around the table, and then invite you to go right ahead with your presentation.

Ian Simmons: Thank you, hon. Chairman.

My name is Ian Simmons, and I'm here today because I'm a little confused as to your ad in the paper. I just want to read it out to you. It says: The Standing Committee on Agriculture, Forestry and Environment of the Legislative Assembly of Prince Edward Island has been given the mandate to fully review the implementation of -

Chair: We can't hear you. Just one second.

Okay.

Ian Simmons: It says the mandate to fully review the implementation and potential impacts of a province-wide ban on the use of cosmetic lawn pesticides.

I guess the question I've got first, just before I do my - I have a few comments, for sure. Is it just lawns or is it gardens or is it shrubbery or is it trees, or is it just strictly lawns? Because that's what it states here.

Chair: Do you want to go ahead?

Ms. Dunsford: I think that's what we're trying to - that's the kind of feedback we want. The terminology that we're using here is cosmetic use of pesticides. It's not hard to research the definition of what that might mean.

Ian Simmons: Sure.

Ms. Dunsford: It does include a lot of things like lawns. It can include lawns, gardens, shrubs, whatever you have, if it's used for cosmetic reasons, right? So those perimeters are the very thing that has to be determined when we're talking about cosmetic pesticides with regards to Prince Edward Island.

Chair: When we had the first session on this I read out what then was a definition of cosmetic pesticides, and it was roughly around that perimeter. I don't have that with me. Sorry about that.

Anyway, we are taking input on -

Ms. Dunsford: The key word is cosmetic, which means how something looks aesthetically. That's what we're dealing with here.

Ian Simmons: Okay.

Mr. Bagnall: Just for my own curiosity before we start, gardens aren't included then?

Chair: We'll have to decide that throughout this discussion, I would say.

Ms. Dunsford: I guess the question is: Do

people use cosmetic pesticides on gardens?

Chair: Okay, I'll just read this out.

Ms. Dunsford: Does a cosmetic pesticide company come and spray someone's garden?

Ian Simmons: Not usually.

Ms. Dunsford: Right.

Chair: It says here: Be it resolved that the Legislative Assembly give the Standing Committee on Agriculture, Forestry and Environment a mandate to fully review the implementation and potential impacts of a province-wide ban on the use of cosmetic lawn pesticides.

Whether that includes the gardens we'll have to decide, Jim. (Indistinct).

Ian Simmons: The reason why I asked that question is to find out what it does encompass. Because if you look at the agriculture community on PEI, and you've got backyard gardeners who have gardens and they're growing tomatoes or a few potatoes for their own use, and they end up with some blight and so forth, if they're not controlling this it could spread province-wide and be a major issue.

Chair: What's your position on that, then?

Ian Simmons: On the gardens?

Chair: Yes.

Ian Simmons: I would think that if it needs to be treated it should be treated somehow.

Chair: Cynthia, did you have a question?

Ms. Dunsford: I'm just going to kind of bring it - if we're talking about cosmetic pesticides, as far as what we're working with here, doesn't include pesticides for the use of growing something. We're talking about growing food. We're talking about the cosmetic use of pesticides, like, on lawns and -

Ian Simmons: So some of these products are crossovers, okay.

Ms. Dunsford: Yeah, but we're talking about restricting the use for the cosmetic use of. We know that there are some chemicals that are a crossover and we're not dealing with that legislation necessarily. We're dealing with a piece of work that includes only the uses of cosmetic pesticides.

Ian Simmons: So potentially - like, we're a vendor. Okay? That's what I'm trying to figure out, where we fit into this picture here of what you're trying to achieve at the end of the day.

So the question is: If there is a ban on cosmetic pesticides, does that mean those products will not be available?

Ms. Dunsford: For the cosmetic use of pesticides. Or the cosmetic use, yeah.

Ian Simmons: So the other question I have for you is: How are you really going to control that?

Ms. Dunsford: That's what we're here for.

Ian Simmons: Okay.

Ms. Dunsford: That's what we want to hear. We want ideas. That's what we're going to be working on, how do you do that. It's been done in many jurisdictions before, in agricultural jurisdictions, in the whole Province of Quebec, in many municipal jurisdictions in Canada that are surrounded by farmland.

So it's not a new kind of approach. So we've got lots of models and things to draw from, but we definitely want to hear from

your perspective.

Ian Simmons: I'm just going to skip ahead here a little bit. I just have some comments on what I see happening.

The CBC reporter, Wendy Mesley, on *Marketplace*, how the Halifax ban has not been effective, right? My concern with that is the fact that they banned pesticide use, they banned properly trained applicators from using pesticides. What happened is they opened up a whole can of worms by having these people going out at midnight and spraying their lawns and doing things. I see that as a huge safety issue for the general public as compared to having somebody who is properly trained out there doing this.

In Halifax, they created the midnight crawlers, they created an underground economy, it's not safe. They use as much pesticide as they have before. This is the thing. That happened in 2001, okay?

Ms. Dunsford: I think also, too, some of the critics of that model also have brought up the idea that one of the issues that kind of contributed to that kind of activity also is the fact that the sale of the product isn't banned.

Ian Simmons: Exactly.

Ms. Dunsford: So, that's something else to consider.

Ian Simmons: The thing is too, there have been significant changes in the pesticide landscaping since 2000 when the Halifax thing hit. Most of the organophosphate products have been eliminated from the home market, i.e., Diazinon, Dursban, Banisect. The only one left is Malathion and I believe that is because of the West Nile virus thing.

Ms. Dunsford: The what? Sorry?

Ian Simmons: The West Nile virus.

Chair: Can we turn that up?

Some Hon. Members: (Indistinct).

Unidentified speakers: (Indistinct).

Ian Simmons: So the thing is, most of the pesticides that were causing problems with the health care before have been banned. There is a lot of companies that are coming out with organic based products to help replace some of these products. The market's a little slow. It's taking time for these companies to get their products approved and so forth. But it is coming.

Ms. Dunsford: There are also some jurisdictions in Canada that show an incredible growth in lawn care industry who decide to use alternative methods, more organic methods, as opposed to chemical ones. So it just depends on the regulations of the area too.

Ian Simmons: Again, my concern is: Where does this all go, how is it controlled, that it's not going to be unsafe to the consumer? It's one thing about banned things, but the other concern is, if you do ban it, then you have a whole lot of safe practices out there. That's the concern that I have.

The lawn care companies on PEI know that they're under very tight scrutiny for when they go to spray. I know that they have to give 24-hour notice, and of course on PEI, we get so much wind here on PEI that sometimes they'll give 24 hour notice to a neighbour and they go out and the next thing you know, it's too windy the next morning, so you have to redo it again.

Ms. Dunsford: Twenty four, or is it 48?

Ian Simmons: It's 24 as far as I know, but it could be 48. So the concern I have about that is I think proper notification with your neighbour is very important. But I think what needs to happen is they need to spray

this stuff - they need to give a notice to people and say: Listen, next week we plan on spraying Consumer A's lawn, your neighbour. At the end of the day, when they do spray it, they need to notify them: Listen, we've just sprayed that. So at least you know to stay off it, if that consumer wants that lawn sprayed.

I also realize, too, that people are sensitive to chemicals. I think that's something that has to work hand in hand with neighbours, and they need to talk to each other. If my neighbour was sensitive to chemicals, I think at the end of the day I would respect them and I would find an alternative that would work for me, or half work for me. But I think at the end of the day that lawn care companies should have a little more flexibility if they can, because they have the proper trained people. Again, it's all about safety. If we don't have safe practices, then everybody's at a bigger risk than what we are today.

Ms. Dunsford: On PEI, are there still around five companies that are registered to apply?

Ian Simmons: I don't know how many there are. I know in my area in Summerside, I don't think there's anybody up there that sprays anymore. But we have a lot of customers that ask us who can do something for them because they don't want to do it themselves.

The current process for purchasing pesticides, there are two processes now. One is called a self-select and one is called a controlled purchase. I'm not sure if your committee is familiar with this handbook. I shouldn't say handbook, but safety training manual that was put out last year. This came out in January, February of 2007. Anybody who was selling pesticides in PEI to the home market had to have certified staff. Were you aware of that?

Ms. Dunsford: Yes.

Ian Simmons: Okay, so that's good. Have you guys actually -

Chair: You've got about five minutes left here too.

Ms. Dunsford: I think the requirement is one person -

Ian Simmons: One person, yeah.

Ms. Dunsford: - on staff.

Ian Simmons: We have six trained. The other thing, too, is with that, you also have to have a licensed vendor, so you have to fill in proper information about your business and so forth and you have to send that into the government. This year in I do believe it's February we have to send in our list of what we actually did sell for products just so they can keep a record of what's going on.

It was quite a financial expenditure for us to be set up for this. We had to send six people for training, we had to pay the license fee, we had to pay the vendor license fee, we also had to build cabinets too and. of course, follow all the rules and regulations, which we did because we felt we were providing a service to the customers that came in that wanted something to solve their problem.

The Pest Management Regulatory Agency of Health Canada is the one that decides what chemicals are going to be in the marketplace. I guess the concern that I have sometimes is if we have these scientists working for the Government of Canada and we don't believe them, why do we have them working for us? Because they're there to protect us as Canadians. So I think we have to let science make some judgement calls. They've banned things that have not been good, and they've brought on products that have been good.

The other thing too is if you look at the Province of Quebec that has banned cosmetic pesticides, if you look at all the border towns in New Brunswick and Ontario that border on Quebec, you will find that the big box stores or the independent garden centres are extremely busy with Quebec cars because they come in and they stock up on the stuff that they need to basically do cosmetic pesticides.

As much as people think the ban has been effective in Quebec, it really hasn't, because it's just really shifted where they purchased their products. It's probably no different than canned pop coming into PEI at the end of the day. Because if people want it they'll go and get it from somebody.

If you're looking at a ban, then I would suggest that you try to get one that is Canada-wide.

Ms. Dunsford: I think, with all due respect too, that's why all these jurisdictions are working toward - to me I'd rather compare it, as opposed to canned pop, maybe to smoking.

Ian Simmons: Yeah, exactly.

Ms. Dunsford: Because we're talking about people's health, right? I think eventually, as people react to what residents and voters want and realize whether or not - like, we know 15 years ago, we didn't know the dangers of smoking were as large as they are, but people reacted anyway. Because they had enough information to make a decision themselves whether or not they could make a personal choice.

So with that kind of action in mind, when you take all these little (Indistinct) and jurisdictions all over Canada, look at how it's affected that law for instance.

Ian Simmons: But for instance, to give an example, this morning I was on the *Guardian* website and they had a poll on there. I don't know if anybody has been on there today, but as of this morning a little after 9:00, their poll said: Regardless of any science either for or against the use of lawn garden chemicals, should the province proceed anyway to ban the chemicals solely because the majority of Islanders want such a ban? The answer yes - in a democracy, the will of the majority should take precedence when conflicting around certain science stalls and issue - they had 43%.

Now no - lawmakers must have a sound scientific basis for all decisions of such consequences because the majority of people might be misinformed - was 48%.

Ms. Dunsford: That poll is ironic to me because you're talking about trust in science. Well, that *Guardian* poll isn't a scientific poll.

Ian Simmons: It isn't, no.

Ms. Dunsford: You yourself can vote 15 times on that poll. I think if we're going to focus on science I'd rather a poll that properly reflects Islanders.

Ian Simmons: Exactly. I'm no scientist, but I know at the end of the day, whatever decision you come to, all I would ask is that you use common sense. Because there are going to be things that you are going to put in place that may affect people in a worse manner, right? I think that you have to find a happy medium here where if something has to be sprayed or treated, that the professional person is doing it and they're aware of who's around them.

Ms. Dunsford: I know in some other jurisdictions, too, there are pieces to the regulations that talk about emergency situations where there is no choice but to go in with the big gun, so to speak, and deal with the issue. I've seen those pieces of regulations, and they're included in bans.

It's kind of an add on.

But I guess - the lawn care industry on PEI, some of the questions I would like to ask have more to do with: If we make this transition, how do we do it so that you still have a business? How do we do it so that your business improves?

Chair: We're right up to time, too. I'm going to give you a couple of seconds to do a quick summation there.

Ian Simmons: Basically, I'm through unless there are any questions.

Chair: Any further questions?

Ms. Dunsford: I'd just like to carry on a discussion at another time with you because just how do we - I think that's the question, right?, is how do we bring these companies together and say: Okay, this is perhaps the direction we're going in. How have they done it in other places and how can we do it here?

Ian Simmons: I think you have to, as I said, make good, sound, common sense judgement. You honestly can't let emotions rule how this thing plays out.

Ms. Dunsford: Yeah.

Chair: Good. Thank you very much for your presentation.

Ian Simmons: Thank you.

Chair: Our next presenter is Gary Schneider.

I'd like to welcome you to the presentation this afternoon. You have about 15 minutes, as I've told the others. I'll give you about a five minute heads up before it's over so we can have a little bit of discussion, question and answer, if you wish.

Gary Schneider: Great.

Chair: So I'll get you to identify yourself for Hansard and carry on with your presentation, that'd be great.

Gary Schneider: I'll watch the clock, which is great.

Chair: There is a lot of noise with this door, so perhaps we'll all try and keep our voices up.

Okay, sorry, go ahead.

Gary Schneider: My name is Gary Schneider. I'm with the Environmental Coalition of Prince Edward Island and I run the MacPhail Woods Ecological Forestry project. I'd like to thank the provincial government for addressing the issue of pesticides and for doing so in a public process. It's important for people to have their voices heard. Some will insist that this is a subject that should be dealt with through science, but as I regularly experience dealing with forest, science is always a moving target.

Think of chemicals such as DDT that are now banned, but only after decades of untold damaged to the success of nesting birds. During the 1970s someone had the bright idea that spraying fenitrothion over the forests of New Brunswick was sound science, when in fact it killed thousands of songbirds that were feeding on the budworms.

Even today, in the face of overwhelming scientific consensus that humans are causing global warming, there still remains a handful of skeptics. If governments waited for full scientific certainty before acting on threats to public health the public would be exposed to many unnecessary and unacceptable risks. Done fairly, with no vested commercial interest, scientific research can bring great results. Unfortunately, when large profits

stand to be made we have to take a careful approach on how we view science. This is why I was perplexed to hear that a chemical engineer had sent in an e-mail to the standing committee saying: Please don't make a politically motivated decision for a few very vocal activists that are trying to scare the world.

I wondered who those few very vocal activists might be. Here's a partial list of what I came up with just within this country. The Canadian Cancer Society urges the Newfoundland department of environment and conservation to completely ban the ornamental cosmetic use of pesticides. The Canadian association of physicians for the environment recommends that the federal government and its regulators immediately move towards a legislated end to cosmetic pesticide use within two years. The federal standing committee on the environment and sustainable development, in its 2000 report on pesticides, firmly believes that a moratorium on pesticide use for aesthetic purposes is necessary until science has proven that pesticides involved do not constitute a health threat and some light has been shed on the consequences of their urban use.

The Ontario College of Family Physicians states that the cumulative effects of being exposed to many different pesticides over a life time represent an unquantified and unacceptable risk to all Canadian children.

Premier Dalton McGinty, of all people, said: There is growing concern about the potential harmful effects of these products on human health. When there is such widespread concern, why would we take a chance with our health and our children's health, just for the sake of a few dandelions or a bit of crab grass? Premier McGinty promises that the Ontario Liberals will ban the cosmetic use of pesticides across the province as part of their commitment to healthier families, replacing a patchwork of local bylaws with a single comprehensive law for all Ontario communities.

The Registered Nurses Association of Ontario, the Canadian Labour Congress, the Nova Scotia and New Brunswick Lung Associations, the Association of Early Childhood Educators of Ontario, the Canadian Environmental Law Association, the Ontario Public Health Association, the Canadian Federation of University Women, the Sierra Club of Canada, the Catholic Women's League, the Halifax Regional Municipality - this is literally just the tip of the iceberg. As of March 2007, there are 134 municipal regional bylaws currently in place across Canada, with an additional 13 pesticide bylaws at the draft stage. At last count, 1,280 municipalities have passed or are under the protection of various forms of pesticide bylaws, the largest being the City of Toronto, which is 2.5 million people.

On Prince Edward Island there are three reasons that the provincial government should enact a ban on cosmetic pesticides. The first is to safeguard the health of Islanders. A key role of government is to protect its most vulnerable citizens, which include children and those people already susceptible to environmental illnesses. According to the Ontario College of Family Physicians, children are particularly vulnerable to the effect of pesticides. Children eat and drink more per kilogram of body weight than adults, their skin is more permeable, and their livers do not excrete as efficiently as adults. Their hand-to-mouth behaviour increases the chance of ingestion and the dermal contact is increased because of proportionately skin surface and because they play on the ground outdoors and on the floor indoors.

Parents track pesticides indoors on their shoes, inadvertently exposing their children. Some pesticides that degrade outdoors in sunlight are more persistent once they're present indoors.

In Canada, pesticides are regulated by the Pest Management Regulatory Agency. I'm sure you've heard lots about this, and you're going to hear more. This agency doesn't do in-house lab work. Instead, it relies predominantly on studies financed by the pesticide industry. Such science is frequently not published in peer reviewed literature and is generally hidden from the public eye because industry requests that the PMRA treat their studies as proprietary information.

The PMRA's vision is to protect the human health and the environment by minimizing the risks associated with pest control products in an open and transparent manner, while enabling access to pest management tools, mainly, these products and sustainable pest management strategies. This says to me, that an explicit part of the agency's mandate is to keep these products on the market. Certainly, someone is doing risk assessment on these chemicals and doing so without having all the necessary information. For example, my child might be extra susceptible to pesticides, the prevailing breezes might blow into her bedroom window, or neighbours on both sides of my house might spray regularly.

The PMRA has two committees that provide strategic advice. The Pest Management Advisory Council has a multi-stakeholder composition which most of us are familiar with. It includes representatives from the Sierra Club, the Ontario College of Physicians and the World Wildlife Fund, as well as those whom the Canada Horticultural Council, the Canadian Federation of Agriculture and CropLife Canada. While this may sound like a balanced approach, in truth these structures are not balanced at all, because industry reps have a far more direct economic interest in the process and are more likely to block any possible consensus.

In terms of a transparent balanced public process, the Pest Management Advisory Council is miles ahead of the PMRA's other committee. The Economic Management Advisory Committee is called EMAC and it's mandated to advise the executive director of PMRA on specific ways to improve efficiency and cost effectiveness without compromising health or environmental protection, and while maintaining industry competitiveness.

I'm going to leave you with some of this information, but it's very interesting that we actually have a committee set up within the PMRA that's devoid of public participation, that's it's a second committee and that it's based just on industry. The commissioner of environment and sustainable development in 2003 questioned the federal governments management of safety and accessibility of pesticides. The commissioner was concerned about the gap between the federal government's commitments to the environment and its actions and stated that some of these pesticides were originally registered over 50 years ago. Some changes have been made to the labels because some of these pesticides since then - but it's unlikely that some of their current uses will meet today's higher standards for unacceptable health and environmental risks.

I don't think anyone will dispute that there are too many pesticides being used on Prince Edward Island. We know that pesticides are in the air we breath and often are in both our surface and subsurface water. Some of the health problems associated with pesticides include mild symptoms such as headaches, fatigue and shortness of breath; serious reaction like vomiting and loss of consciousness; long-term adverse effects on behaviour and the nervous and immune and endocrine systems; forms of cancer such as non-Hodgkin's lymphoma, leukemia and soft tissue sarcoma.

While it may be argued that farmers feel

they have no alternatives to pesticides, eliminating cosmetic pesticides on lawns would be a very easy way of reducing the overall load on our environment. This reduction would not only be from the pesticide used on lawns, but also from the left over pesticides that are often difficult to dispose of in a safe manner. In my mind, this is where the precautionary principle comes to the forefront. We simply don't know enough about what these pesticides might be doing to our health and so this is one risk we should not be willing to take, nor should we want to force these risks on our neighbours.

The second reason for enacting a ban on cosmetic pesticides is to preserve our tourism industry. While we promote ourselves as Canada's green province, what kind of publicity are we actually earning in the media? For the most part it's bad publicity. Just this year alone there have been national news reports on a variety of negative environmental calamities. The two fish kills, the nitrates in our drinking water, our oxygen starved rivers, the increased soil erosion last winter, and the concern over whether pesticides are contributing to the decline in lobster harvest. This is publicity not just in our national media, but also amplified over the Internet. It does not paint an attractive picture of this province for visitors who might be concerned about the environment. Banning cosmetic pesticides would send a very strong message to potential visitors that we do care about the environment and are taking action to protect the health of both Islanders and visitors alike.

It will attract much needed positive attention from both local and national media, especially if we are amongst the leaders in this type of legislation. If we wait until all the other provinces enact bans, which I'm convinced will happen sooner or later, we lose this opportunity to shine.

The third reason for a ban is that it would help facilitate a change in the way we relate to nature. Lawns are generally sterile areas that have little to offer most species of wildlife, especially if they're sprayed with pesticides. When I see a large lawn, I think of all the resources that go into maintaining that lawn, including the burning of fossil fuels during regular mowing. I'm not advocating removing all lawns by any means, but there are large areas of lawn across the Island that are rarely used unless someone is pushing a mower. Instead of seeing a ban on cosmetic pesticides as a threat to lawns, we should see an opportunity to improve not only the looks of the landscape, but also its value for wildlife.

The MacPhail Woods Project has worked with many homeowners and communities to make areas more hospitable for birds and other forms of wildlife. These planted areas generally take little maintenance, store carbon, and provide many other environmental benefits. The provincial forest nursery could supply planting material for bird- friendly windbreaks and hedges. These actions would be timely, helping to address growing concern over both climate change and the well documented decline of many of our migratory songbirds.

I'd like to give the Canadian Cancer Society the final word on the subject. The Canadian Cancer Society is very concerned about the use of potentially carcinogenic substances for the purpose of enhancing the appearance of, for example, private gardens and lawns, as well as parks, recreational facilities and golf courses, which they call ornamental use.

Chair: We're at the five minute - okay.

Gary Schneider: Okay. We base this concern on the conclusions of the international agency for research on cancer that state that some substances used in pesticides are classified as known, probable

or possible, carcinogens. In some cases, evidence linking pesticides in cancer will not be scientifically definitive, but it may be suggestive in growing. Since ornamental use of pesticides has no countervailing health benefit and has the potential to cause harm, we call for a ban on the use of pesticides on lawns and gardens.

That was my race for today.

Chair: Good.

Any questions for Gary? Comments?

Do you get many people going through the MacPhail woods?

Gary Schneider: Yes. We do a serious of regular workshops, so I bet you we get 500 people just coming out for those workshops. Then we have all kinds of visitors and we do (Indistinct) hostels and we have school tourism and we do summer programs. So it's actually quite a hopping place.

Chair: We had a look at it from a distance. The caucus had a meeting out there at the homestead. We didn't get the tour through the woods at that point.

Gary Schneider: I invite you out someday. I'd love to tour you.

Chair: Cynthia has a question here.

Ms. Dunsford: Comment more. Just a continuation of the tourism piece that you mentioned. Feeling that it's inevitable that the rest of Canada is going in this direction and it does seem that way with so many other jurisdictions coming on with this. I guess we also saw a video - I believe it was the Sierra Club, was that the video presentation that showed the alternative ways of how you could treat a lawn to make it look just as nice, if not better.

We're all thinking about time frames here. Some people want it - we can do this now, we can do it later. What's your take on a time frame if we were to educate and promote and take companies through transitions?

Gary Schneider: I'll tell you. I'm always in a rush for things. I've been watching things degrade here since I moved here about 30 years ago and I do see a big change. We're seeing it now in a lot of the crisis that are happening.

So my instinct would say that you want to do it sooner than later. I don't think we need to throw companies out of business. I think the City of Charlottetown, the pesticide report that came, in recommended 2008. That gives people plenty of time. I don't think the businesses here are stupid, I don't think people can't change. I think we could learn a whole different scale. I know we have more work doing organic landscaping than we could ever possibly look after. We have more people calling us up and looking for that kind of work and I don't even really do that kind of work. So I know there is an interest there.

Ms. Dunsford: The demand is there.

Gary Schneider: Yeah. Again, it would take education. If you delay it, that's the easy thing, right? You can say: It's going to phase it in over five years or ten years or whatever it is. You're going to be way behind everybody else.

Ms. Dunsford: The reason I kind of thought about that was because you brought up the tourism side of it too. If you react now, it might mean that PEI shines.

Gary Schneider: Again, I get calls from people all across the country who say: How come you're having fish kills out there? How come you're doing this? I realize I don't watch - I don't stay up late enough most nights to watch the national news. But

I realize that all these things are getting national attention, and that's really bad publicity. You have a tourist budget that you're trying to bring people in and at the same time, for free, all your neighbouring provinces are getting free advertising because people aren't coming. If they're worried about their health, they're not coming to PEI. If they're looking for a place that says we're standing out, this isn't the place they're coming to.

With the wind mills and other things that could go on here - support for organic agriculture, good forestry practices - this could be a place where people would flock too. But instead, what they're seeing is negative attention to that. I think that's again why I'd like to rush things.

Ms. Dunsford: But the 2008 recommendation from the Charlottetown report is a reasonable - of course, that's next year.

Gary Schneider: That seems reasonable. It gives the businesses time to look after things. Again, if you give them ten years, they'll take ten years. I don't think they're stupid. I think people will actually be able to do things differently.

Ms. Dunsford: Assuming that those kinds of transitions have happened in other places too, I think it would be valuable to find out from some of these companies how they did it, and whether or not they were successful.

Gary Schneider: But again, if I was worried about lawn care businesses over the health of my children, I would err more in the health of my children then I would with - it doesn't mean that I don't want to keep those people in business, but I think there are other things that they can do within the perimeters of looking after lawns.

Ms. Dunsford: I think the statistic, anyway, according to the Charlottetown report is that it's 20% of people who use lawn care companies or who look for products for their lawn.

Chair: We're right up to time. Thank you very much, Gary, for the presentation. I appreciate you coming forward with that.

Our next presenter is Margie Loo. Welcome you to the hearings before the committee. Maybe you heard this before. We have about 15 minutes and I'll give you a little heads up five minutes before it's over. So I'd ask you just to introduce yourself for the sake of Hansard and then go right into your presentation. That would be great.

Margie Loo: My name is Margie Loo and I'm an organic farmer in the Belfast area of PEI. Good afternoon to everyone.

I grew up in Springfield on a 250-acre mixed farm growing cattle, vegetables and grains. It was hard for my parents to make ends meet at times, and to supplement the income, for many years my father did custom spraying. My father trusted the experts who said the chemicals were safe. It was long before regulations about wind speeds and protective equipment. Like everyone, he got covered in chemicals many times. Eventually, he stopped using chemical pesticides and converted the farm to organic production. It was certified through the Organic Crop Improvement Association in 1996. These days two of my brothers still make their living growing a variety of certified organic crops and raising organic beef cattle.

In 1998 my father was diagnosed with a type of leukemia that his doctor told him was most likely caused by chemical exposure. He died in 2001.

In 2000 my partner and I bought a farm in Belfast. For me there was never any question of whether or not to use chemical inputs. My overriding objective is do no

harm to my land, but rather to strive every year to improve the health of the soil and maintain as much habitat as possible for wildlife and native vegetation. Natural plant ecosystems are extremely complex and all life is interwoven and codependent on other community members. The more we simplify the system, the more susceptible we make it to disease and pest outbreaks, because the safeguards that nature provides are removed.

As an organic farmer I've had to learn how to manage the system, or more precisely, how to judge when my intervention is necessary. For example, in our society only a few insects are considered good insects because they are carnivores and the rest are bad because they eat plants. In reality, it's a lot more complicated than that. If you have a few aphids in the garden it's likely you'll also have a few ladybugs. However, ladybugs only forage in a small area. If there is a sudden outbreak of aphids and there are no ladybugs nearby, they will not arrive in time or in adequate numbers to deal with the problem.

For a number of years we've noticed that our burning bush shrub becomes covered in aphids every early summer. We have discussed even cutting it down. On the surface the aphids appear to be an unsightly problem, since as they reproduce they're produced they're likely to move onto other plants. But after further reflection and observation, I realize that the burning bush was performing a very important function. When I took a closer look under the leaves one year, I discovered that it was a ladybug nursery of outstanding proportions. Within a few weeks, the aphids had virtually all been eaten and the ladybugs had dispersed themselves throughout the garden.

In nature, predators never eat all the prey. Since the work involved eventually burns more calories than they get back, they move on to a more productive place until there is enough to eat to justify their return. On the other hand, if there is a balance between predators and prey, there won't be any real crop damage either.

I have witnessed the results of broad spectrum insecticide applications a number of times and seen the ground beetles and ladybugs lying dead on the ground. Those plants will be much more susceptible to pest pressure the next time an herbivore insect blows in on the breeze and lays a cluster of 200 or more eggs.

In the same way, weeds are seen as a sign of poor land management. Obviously, weeds taking over a crop is a problem, yet volunteer plants and crop fields provide a myriad of benefits that are most often overlooked. Most predatory insects are not exclusively carnivores, they also need nectar in their diet, and so can't stay in a field if they do not have a nearby food source. They also need habitat that vegetable crops can't always provide.

That much maligned dandelion encourages beneficial microbial life in the soil. It has also been found to diminish the prevalence of soil-borne fungus fusarium. Dandelions, as well as other deep rooted plants, help break up hard pan and bring minerals like phosphorus up from the subsoil. Volunteer legumes, such as clover, fix nitrogen in the soil. Volunteer plants also tell you a lot about the health of your soil and whether the conditions are optimal for the crop you wish to grow.

I'm not saying I figured it all out. I have a lifetime of learning left to do. What I can say is that each year I farm I am making a better return for my time. I'm spending less time combatting pests and my insect and weed pressure is diminishing. It is apparent to me that although large-scale organic production is feasible and desirable, farm management would have to be modified for the change. In order to make a successful organic operation, you need to monitor the

health of your soil and care for it accordingly. This involves feeding the soil rather than just feeding the crop plant and using organic pesticides only as a last resort.

On the other hand, there's absolutely no reason why we shouldn't stop applying cosmetic chemicals now. As a society we must stop finding beauty in acres of sterile two-inch high grass fields that provide no benefit to the environment whatsoever. If people want to invest enormous amounts of time and resources into their lawn upkeep that is their prerogative, but it's hard for anyone to make the case for needing a large perfect lawn or that their need for this lawn overrides the need to protect our groundwater from chemicals leaching into it or our children from inhaling airborne pollutants.

There are presently a great many pressures on our environment, both locally and globally. On PEI our soils leach out chemicals, including nitrates, very rapidly. When combined with our reliance on groundwater, this makes us very susceptible to contaminated drinking water. We are all concerned about raising carbon dioxide levels and the impact that's going to have on our environment, and it's already happening. We are also running out of petroleum. We should not be facilitating the ease with which people can maintain large chemical dependent lawns by allowing them to use chemical pesticides for cosmetic purposes.

There is much we can do to improve the health of our Island. Some of what we need to do will be hard work, but some things are easy, such as: removing cosmetic pesticides from store shelves; helping people see the beauty and a diverse landscape around their homes, including wind breaks and animal and insect habitat; teaching land owners how to grow lawns that are not susceptible to insect and disease outbreaks.

Beautiful gardens and small lawns do not require chemical fertilizes and pesticides. The more diverse the landscaping, the more resilient it is to insects and diseases. This is an opportunity for you to do something positive for everyone's well being. I am certain that many of the chemicals that are considered perfectly fine to be used in 2007 will be found to pose unacceptable health risks in the future. Are you willing to take that risk in order to have big lawns and for chemical companies to turn a buck? I hope not.

Chair: Perfect timing. Thank you for the presentation.

Questions or comments?

No questions, no comments?

Mr. Bagnall: Is Raymond your brother?

Maureen Larkin: Yeah. I have copies, I don't know if -

Chair: Yes, we'd love to have copies. That's great.

Margie Loo: Thank you.

Chair: Again, thank you very much.

Our next presenter is the Institute of Island Studies.

I'd like to welcome you to the committee today. Maybe you heard before, about 15 minutes or so, and I'll give you a little heads up, five minutes to go. I'd like you to introduce yourself and then carry on with your presentation.

Dr. Irene Novaczek: I'm Dr. Irene Novaczek, the director of the Institute of Island Studies at the University of PEI.

In keeping with the mandate of the institute, this intervention seeks to promote sound public policy. It's also put forward in the

spirit in the cooperation with the many community partners with which we work and who share concerns over the use of pesticides and their impacts on human health and the environment.

I'm a marine biologist. I'm always intrigued by the special challenge and opportunity presented by the relationship between people and the environment on a small island. Island ecosystems are inherently vulnerable: vulnerable because of their limits and small scale, vulnerable because there is no 'away' for us, no place from where we get more trees or pump more water or dig more soil, no place where we can safely exile our waste products. The impacts of development choices on small islands are immediate and personal. They remind us about our dependence on the land and sea that underpins our quality of life.

The scale of a small island society also has some strengths, especially when it comes to decision making for development and management of our human activities. On a small island we know our neighbours, we're influenced by and we can influence their opinions and priorities, and we can engage directly with our government on matters of public policy and governance.

The question of banning the use of pesticides for cosmetic on this small Island comes out of more than a decade of vocal public concern over the impacts on human health. Pesticides are designed to kill, and scientific evidence increasingly supports the public's perception that exposure to even small amounts- whether in the air we breath, the water we drink, or the food we eat - is likely to increase our risks of contracting cancer or suffering other impacts, such as thyroid dysfunction and nervous system impairment.

Of particular concern are impacts on children which include increased risk of ADD-ADHD and violent personality disorders, impacts on pregnant women and both men and women of childbearing age in the form of increased rates of birth defects, impacts on people whose health is already compromised such as the elderly infirm and people with highly sensitive or compromised immune systems.

We know from research reported in the 1999 provincial water quality report that mixtures of pesticides at parts per billion concentrations are found in domestic wells close to potato and blueberry fields. An even greater array of toxins are detectable in our streams and rivers, and airborne pesticides, especially the fungicide chlorothalonil, are in every breath we take during the growing season. This is not just a human health issue, but one that effects the entire ecosystem. Recent laboratory studies performed by my colleague Dr. Wayne Fairchild at the department of fisheries indicate that, even at parts per billion concentrations, some of our commonly used insecticides are lethal or damaging to lobster larval, for example. Clams in estuaries like in the Mill River are already suffering from haemolytic disease that in other jurisdictions has been found to be related to exposure to toxic chemicals. Fish kills continue to plague our rivers and streams, despite our efforts to control runoff of pesticides and fertilizers from agricultural land.

Demographic research reveals that Prince Edward Island, despite the fact that we have no heavy industry - we have a rural landscape, an appearance of pristine environments that attract tourists - we suffer from higher than average rates of cancer compare to other provinces, even after controlling for our aging population. We also know that part of the problem is that many of us smoke, we make poor food choices, we carry too much weight. In this we are not alone.

All across North America, rates of cancer, thyroid dysfunction, learning disabilities,

birth defects and other chronic health conditions are unacceptably high. Whether we are higher or lower than anyone else doesn't really matter. What we have to ask ourselves is, looking around to our friends and relations, our neighbours in our communities: Is the rate of cancer and thyroid and ADD - I mean, I see it every day, I'm always going to fundraisers - is this acceptable? Is this the way we want to live?

It's past time to take action to strictly limit or eliminate the use and release of toxic substances in our homes and in the environment. The cost of these are crippling to health care systems, they're crippling to social programs, and to government budgets. We know that.

Cosmetic pesticides give us an opportunity to act very quickly and with very minimal, if any, short- or long-term economic impacts and a lot of positive benefits. This is a case where the use and release of toxins is done for non-essential cosmetic or recreational purposes. Home cleaning and personal care products are another area where we could certainly be moving.

On PEI we have a population of about 135,000. That's the 2006 census data. Total land base of 566,000 hectares. About half of that is under agriculture. Somewhere between 6 and 9% is municipal. That's about 40,000 acres, give or take. Our annual pesticide sales on this small Island are over a million kilos of active toxic ingredients per year. Your toxic ingredients may be 2 to 5% of what's in the pesticide container. That's more than 8 kilograms for every man, woman and child on this Island. It is hugely disproportionate and well above the North American average which is 1.5 kilos of active ingredients per person per year.

Estimates from other jurisdictions suggest that, if you look at your pesticide sales, 90% are probably going to agriculture and perhaps 10% into homes and gardens. Urban use of pesticides is therefore less than agriculture use in terms of the total annual weight, but it is of particular concern because these pesticide applications are being made in environments where human beings are most concentrated. Also, urban pesticide users tend to buy and use much more insecticides, nerve toxins, the things that in times of war you put into toxic nerve gas. Our agriculture chemicals are predominately fungicides, second herbicides, and insecticides tend to be a much smaller proportion.

Application rates for agriculture pesticides are usually, in North America, in the range of point eight to one kilo of active ingredients per hectare, but here in PEI we seem to be an anomaly. Because the recent Environment Canada research reports documented potato fields receiving, in Summerside area, more than six kilos of active ingredients per hectare over one growing season. In general, urban garden applications are similarly intense. They're in the three to four kilos of active ingredients per hectare in our climate, in Canadian climate.

Much of this intensive pesticide application, probably more than 100,000 kilos, if you judge by the statistics from other jurisdictions, are being applied in our top ten municipal areas, where over 70% of our Islanders live and even a larger proportion come in to work. Particularly, notably, that would be Summerside and Charlottetown. That's where 50% of us live and a very larger per cent of us work.

Once pesticides are applied on urban lawns and gardens, what happens? Some hits the target insect or plant and does its job, most hit non-target species. About 70% of a typical spray application either stays in the air and drifts away from the target area or subsequently evaporates from that target zone and is carried elsewhere by air currents. If it rains within a few days of the

application there are still active pesticides as well as highly toxic breakdown products that can be then pushed down through the ground into underground water systems or washed off the surface of the ground, off the surface of the sidewalks and driveways, off the sides of cars, wherever it's come to rest after being applied, down into storm drains or through ditches, eventually into rivers into the sea.

When you think of Summerside and Charlottetown in particular, our major urban centres, land wash combined with sewage and industrial effluents from factories, the outfall of chimneys and incinerators, goes straight into bays and harbours that are critical habitat for our fisheries, as well as for tourism and recreation.

Oceanographers working in the Northumberland Strait where fisheries are currently in deep trouble, as I'm sure you know, have documented how the tidal currents move. They come from the west down through the strait, slowly sloshing back and forth and eventually make their way out around the Cape Breton shore. As that water travels through the straits, currents take it into Summerside Harbour and Bedeque Bay and then out again, and then it swirls into Hillsborough Harbour and Charlottetown and back out again.

In this way, all of those very delicate larval, fish eggs and larvae and juvenile of all the species, lobsters and fish that we depend on in our fishery, get directly exposed to what is coming out of our urban centres. They're very poorly positioned with respect - well, they're very strategically positioned with respect to our fisheries and we have to pay very close attention to what is coming off of those urban land areas.

Chair: We have about five minutes left, okay?

Dr. Irene Novaczek: I want to get to the question of governance, so I'm going to skip to that.

In Canada, as in many other western democratic countries, we tend to have top down command to control systems. You see this very clearly in our fishery. In other cases, governments tend to keep very hands-off and let the market rule and basically direct public policy. You can see both of these philosophies at work in any given individual government. Either of these tendencies can have disastrous effects. They generally show up in extreme disparities between rich and poor in your population, or in extreme degradation of your natural environment, and with predicable long-term negative impacts on social and economic health.

In response to the poor track record of our governments - for example, in fisheries management or climate change control - there are now teams that include government people, NGOs, academics, scattered all across the globe working on new forms of governance, imaging new ways that governments could operate that are inclusive of the grassroots, that are more precautionary in their approach to natural resources, and more attentive to the needs of local economies and cultures.

They are predicated on a principle of subsidiarity. Basically what subsidiarity means is that you take your decisions as close as possible to the people who are going to be affected by those decisions or who have to comply with the regulations that you have in mind, and yet high enough up to attract the financial and other resources that are required to do the job and to be geographically relevant.

It's difficult work to re-engineer governance to be effective and responsive and optimally inclusive in this way, but it really needs to be done. This is increasingly being recognized in other jurisdictions globally.

A key piece in the picture is an effective municipal level of governance. Here on PEI, most of our land base in unincorporated, there's little in the way of coherent land use planning and zoning in spite of lots of studies and recommendation from royal commissions. Devising a system to control and limit household use of toxins, such as garden pesticides, will be difficult. It will be easier and more effective if steps are taken to reform local governance structure. Provincial bans are a very good idea when applied to areas of provincial jurisdiction, for example, to prohibit the manufacture. import and sale of specific products to domestic markets or to protect elders in nursing homes or children in schools or patients in hospitals from dangerous chemicals.

When it comes to the regulation of household use, it's municipalities that need to have the power to engage their citizens in policy discussions leading to local bans. In such a scenario, municipalities also need an adequate share of tax resources to enable regulation and enforcement of bans as required. On PEI this would involve providing municipalities with new powers, along with extending municipal boundaries to ensure that each unit has an adequate tax base. But that said, no government will ever have enough money or staff to enforce broad bans on toxic substances if average citizens do not understand why the ban is in place and what alternatives are available. Citizens must be educated, they have to be provided with incentives, and subjected to peer pressure from their neighbours so that they voluntarily change their habits to assure a healthier future.

I'm going to skip to my summary conclusions.

This is consistent with research that has taken place in the Institute of Island Studies over 20-plus years. Our interest is the long-term improvement of human and environmental health and protecting our prospects for a viable society and economy on Prince Edward Island, and I'm sure that is your interest as well.

So we would suggest that:

consistent with that the doctrine of public trust, and the precautionary approach which is embedded in all kinds of legislation from the local to the global, that the provincial government act swiftly and with determination to reduce and, where possible, eliminate uncontrolled releases of toxins into the environment, starting with cosmetic pesticides;

that the province provide leadership by immediately banning the use of pesticides around and within all provincially controlled properties and institutions;

that the province follow the example of Quebec and immediately ban the importation and sale of pesticide products destined for cosmetic use;

that the province work with community-based organizations to research, develop and distribute educational materials for schools, businesses and household regarding safe alternatives to pesticides and other toxic chemicals for use in homes and commercial properties and on lawns and gardens;

that the province provide incentives for new small business development that is dedicated to providing householders with safe alternatives to house and garden pesticides, toxic cleaning products, and other materials hazardous to human health and the environment;

that the province take steps to provide municipal governments with the power and resources needed to undertake public education and local decision making processes to consider how and when to enforce local bans on the use of pesticides;

and that the province move immediately to develop collaborate efforts with the federal government to institute national bans on the manufacture and sale of pesticide products designed for household use in Canada, as well as sources of other toxins that pose unacceptable risks to public health and the environment.

I see Prince Edward Island as a provincial jurisdiction to be really unique in the Canadian family of provinces. We're small, but that doesn't mean that we are insignificant. It means that we have a particular opportunity because of our manageability, because of the intimacy of our political system and our public system, and the closeness between civil society organizations and our governments, to really show the rest of the country how to do things and how it can be done democratically and well.

Chair: Thank you very much.

Any quick comment, Buck, or question?

Mr. Watts: Irene, I'm not sure if I heard you right, but basically did you say that on PEI there's five times the amount used per capita than anywhere else in the Canada? Is that basically -

Dr. Irene Novaczek: North America -

Mr. Watts: North America.

Dr. Irene Novaczek: - even California. We're something like three times heavier than California, and California is covered with market gardens, chemical intensive market gardens, and yet our rates of application, our orders of magnitude - well, (Indistinct) double, triple.

Mr. Watts: Is this agriculture or cosmetic pesticides?

Dr. Irene Novaczek: Both. The only data we have on PEI is what gets sold for application here. The stats don't distinguish whether that's sold for household or agriculture purposes. So we can only judge from - well, if you look at that Environment Canada information that they picked up from farms in the Summerside area of six kilos of active ingredients per hectare in one growing season - and that's probably like normal for an intensive potato production.

I don't know if the 10% urban-90% agriculture is a perfect fit for here, it may be higher agriculture. Still the amount applied per capita pertains, and because the province is so small - I mean, Bill Ernst and his team's work on airborne pesticides on PEI showed that if you're out on the end of the wharf in Abrams Village you're still breathing pesticides. You don't have to be beside an agriculture field. It's everywhere, there's no getting away from it. The wind is always blowing.

Our agriculture pesticides will affect the people in the cities as well. But then on top of that, there is a very high likelihood of this very intense usage within urban areas, probably three kilos of active ingredients per hectare per year. So it's no wonder that people are sick.

Chair: Thank you very much for the presentation. There is a lot in that, that's for sure.

We're going to take a couple of minutes' break and then David Daughton is going to make a presentation.

[There was a short recess]

Chair: I'd like to welcome you to the presentation this afternoon. We've allotted about 15 minutes for you and I will give you about a five-minute heads up towards the end of your presentation. You can carry right on. I'll give you a heads up. We may want some questions at the end of that so we

usually leave a little time for that.

I'd ask you to introduce yourself for the sake of Hansard and the rest of us, and just go on with your presentation then.

David Daughton: Thank you for allowing me to present. My name is David Daughton. I thought I'd give you a little bit of background. I grew up in England and Wales and I lived in the UK, Europe and the USA before coming a Canadian citizen.

I've been a landowner on PEI since 1980 and have been a year-round resident for over 25 years. As a young guy, my experience ranged from being a landscape gardener in Suffolk working with agricultural chemicals to be sexton of a church in Massachusetts working with Janitor In A Drum. More recently I've worked for Canada Mortgage and Housing, I've worked for Health Canada, and I currently work as the Atlantic Coordinator for the Canada Community Economic Development Network, commonly known as CCEDNET.

My interest in this topic comes from several directions. I'm past chair of the health caucus of the Canadian Environmental Network and I was elected for two terms as the chair of the Canadian Environmental Network, and I also sit on the managements systems committee for the Canadian General Standards Board. So I have an interest in regulation and standards.

I endorse the elimination of cosmetic pesticides. No doubt the committee has heard from many opponents of pesticide use already, so I won't try and bury you with information about inert ingredients and the like. I have two main points.

The first point being that it's time for a blanket prohibition. Exposure to environmental toxins is something that we have less and less control over in spite of an increased volume of regulations and a significant amount of research. I have over 20 years of participation in consultations. Whether it's 2-Butoxyethanol, chlorofluorocarbons or the constantly evolving new substances release mechanisms, there is massive amounts of time and money spent on trying to manage a risk in an environment that sees dozens of new substances created every week, and a mere handful banned in any given year. Even though substances that are eventually banned don't generally go away. They often continue to bio-accumulate, or some simply stick around in the air, soil or water to be inhaled, ingested or imbibed.

I've spent many years of my time at health and environment consultations listening to expert testimony, looking at panel point presentations, deciphering graphs. I can attest to the fact that almost no study has been done on the interaction between the chemical contaminants that we routinely encounter. A great deal of testing has being done on the effects of individual chemicals, but even then we often discover that previously approved exposure thresholds were set much too high.

I'm reminded of a job I had in high school working a saw bench cutting up asbestos roofing and siding material where we were lucky to get a pair of gloves, let alone a mask. Since then, obviously, times have changed, but I think we see constantly evolving higher thresholds as people become more aware of the environment issues around health and toxics.

How paint solvents interact with air fresheners or with food additives or with laundry detergents or with medications or with pesticides remains a mystery to the scientific community. So I would say to the committee that if you plan to wait for the science before making a decision, don't hold your breath. But do get a respirator.

My second main point is that a cosmetic

pesticide ban is good for business. In a world in which competitive advantage and distinctive branding are increasingly important to economic prosperity, demonstrating environmental leadership and a commitment to community well-being are the kind of messaging that's attractive to new residents and to new businesses. At the same time, research on the determinants of health demonstrates that cohesive and less polluted communities enjoy improved health outcomes. In a province that spends the majorities of its tax revenues on treating illness, I'd like to think that policymakers will take a proactive approach to reducing exposure to pollutants and encouraging healthy outdoor activity.

Any element of doubt about the safety of drinking water or whether it's safe to put the baby down on the grass creates a disincentive to population growth and acts as a break on progress towards a prosperous and healthy community.

I can stop there, but I'd like to look back on this committee's work as the beginning of a approach that goes beyond the simplistic banning of toxic sprays. I'm therefore also submitting an appendix that examines the potential for the creation of social enterprises that can enhance the health of our lawns and parks, while also contributing to community well-being and reduced health care cost. I've submitted that appendix to the clerk so I'm sure it can be circulated.

Thank you for the opportunity to share these views with you. I'd welcome questions, and I really appreciate the opportunity to be here.

Chair: We thank you for the presentation, David.

Any questions or comments? Cynthia.

Ms. Dunsford: Sure. Just the idea that has been talked about so much during all of these presentations is various people have touched on the chemical test, the testing of one chemical and not combining the chemicals that are actually within these compounds in the testing process. I don't know whether or not it's a waste of breath to ask why they don't do it, I guess it's maybe naive to say, but is it because they really - if they were to do it, it would give results that would be just indisputable, do you feel?

David Daughton: The chemicals that I've been most recently involved with are 2-Butoxyethanol and 2-Methoxyethanol: 2-Methoxyethanol is contained in practically everything you can think of, from pharmaceutical pills and spray-on cleaners to Windex and paint.

If you attempt to do analytical science based on the interaction of the numbers of chemicals that exist, then it becomes extraordinary difficult. We all know how hard it is to win the lottery and there are only 49 numbers in the lottery, but they combine into an extraordinary combination of possibilities. There are of course tens of thousands of chemicals. So the decision was made - partly because of industry pressure, but partly just because of the feasibility - to take them on a case by case, one by one basis. I guess that's the reason that more research isn't done, it's just because the variables are just so enormous.

If we did research in this room, are we getting mercury from the energy from waste plant, are we getting gas off from the carpet? There's just so much of it in day to day life that I'm not sure there is a great deal of - although I think there should be more consideration of the interactions of different chemicals, it's actually impossible to draw any scientific conclusion, or any meaningful scientific conclusion, because you don't know what people are actually going to encounter in the real world.

Chair: We're up to the five minute limit.

Just a question to Jim. I'll come back to you, Cynthia.

Mr. Bagnall: You just made an observation there that there's a lot of household cleaners, chemicals, that are also containing the same type of materials. Would it be fair to say that the household materials would be far more dangerous to the individual than the outside? Because anything inside would be contained in a closed room or closed area, where the other the air blows it away. What do you feel about that?

David Daughton: Jim, generally speaking, they design the studies in terms of the intensity of exposure and the duration of exposure. So yeah, if you're outside, then under normal circumstances, all things being equal, the natural ventilation will disperse a problematic compound. I know, for instance, they permit highly toxic chemical in the aerosols which you use to inflate tires because they're assuming that people are going to be using those by the side of the road rather than in their living room or in their garage.

But the reality is that you never know where people are going to use anything. Maybe their going to inflate the tire outside the window and it's going to blow inside. It's hard to predict. Generally speaking, yeah, I would have to say that it's less. Things are less hazardous in the outdoors than in an exposed space.

Mr. Bagnall: So which is more dangerous to our health, though? Our cleaning supplies we have all those things in or our cosmetic pesticides? Because when you get right down to it, it's an amount that gets consumed into the body that's maybe causing the problems. So is it coming from our cleaning supplies or is it coming from our cosmetic supplies?

David Daughton: I guess I would say that if you were to have a committee about eliminating cosmetics, I might come and make a presentation to that, because there are lots of nasty things in cosmetics, including 2-Butoxyethanol. Cosmetic pesticides are something that can be eliminated without causing any great social or economic harm and can cause some social, economic and environmental good. Whereas if we take on - personally I think there are household cleaning products that are likely more hazardous than lawn spray. On the other hand, lawn spray is generally going - it's something that people have less choice over.

So if you choose to use a particularly noxious household cleanser, you're exposing yourself and family to it. If you're flushing it down the drain, you may be polluting the water. With lawn chemicals, they're going into the ground, the neighbours are exposed, they're going into the air and they go into the water table. It's not an apples and apples comparison, but I see your point.

Mr. Bagnall: I guess what I was saying is the cleaning supplies go right into the systems. They go right down the drain, they don't have a chance to filter out through the soil or anything else, they're going into the streams, they're going into wherever. Your pesticides, even though they are sprayed and there are problems, and we know that, will have a chance to filter out, some going through the soil before it gets into the water system or whatever. These cleaning supplies have a direct line maybe right to our water supplies.

David Daughton: Yeah, certainly pouring something down the drain is not a good idea. I must say, I think of the soil as more of a buffering system than a filtering system. So it may delay exposure but then you get the -

Mr. Bagnall: Always gets there.

David Daughton: - windstorm, you get the

kids playing in it, you get the rainfall. It eventually creates problems.

Chair: Cynthia.

Ms. Dunsford: The last presentation, Irene talked about municipality responsibility and provincial responsibility and how that might go together or work together on this. One of the things I didn't get a chance to speak to on that - and now I'm wondering if you could - is the idea that we do have so many municipalities on PEI. Now, I know that really when you think about the larger ones that might take this on, and I know of some who have - say, Charlottetown, Stratford, Cornwall, Montague, Summerside, for example - I guess I'm kind of puzzled as to how we could take that idea, which I think sounds like a very effective way of dealing with it on Prince Edward Island, where we have municipalities given the power to legislate regulations in their jurisdictions.

But then, how do we kind of regulate that as a province when we consider how many possible municipalities or regions on PEI would have perhaps their own separate regulations that may not necessarily coincide or share with the one next door? Any thoughts on that?

David Daughton: My main thought is that my primary focus is economic development, and I think that there's a real window of opportunity for the province to be a leader in legislating cosmetic pesticides, and to send a message out there that we are a community - not just individual municipalities - but as a province we're going to take a step that is going to empower our citizens, it's going to prevent pollution.

I guess that, to me, is something that would have a stronger effect than doing it on a municipality by municipality basis, even if you could.

Chair: I really appreciate you coming forward and making the presentation.

I think that concludes our afternoon session. We had a long session, that's for sure. It was very interesting and a lot of information came forward.

We are going to adjourn until 7:00, at which time we have six more presentations. It should be a nice evening. Everyone is welcome to come back and listen in if you wish.

Thank you. Stand adjourned.

The Committee recessed

Chair: I'd like to reconvene the meeting. I welcome you back and all those who are watching in the back. Again, those who have cell phones or Blackberrys or whatever, make sure they're turned off. Okay? Good.

Anyway, we'd like to welcome representatives from CropLife. I believe it's broken down into three 20-minute presentations, roughly. I'll ask you to, I'll give you a - Mr. Hepworth, I think you're starting, are you? I'll give you about a five-minute heads up. Are you going to do your presentation and then Ms. Houghton?

Lorne Hepworth: Yeah, preferably, I would open -

Chair: And then we'll do questions after that.

Lorne Hepworth: That would be great, Mr. Chairman, if that works for you.

Chair: Super, we can do that.

Lorne Hepworth: Okay.

Chair: I'll ask you to introduce yourself there for the sake of Hansard, and I'll give you a little heads up when time starts to run

out.

Lorne Hepworth: Great.

Chair: Okay, so if you want to start with your presentation, then we can pick up with questions later.

Lorne Hepworth: Great.

Thank you, Mr. Chairman. and members of the committee. My name is Lorne Hepworth. I'm the president of CropLife Canada. With me today is Dr. Donna Houghton who is with Syngenta Canada, Crop Protection Canada, one of our member companies, and David Thompson who is administrative head here for our Atlantic Provincial Council of CropLife.

Thank you for the invitation to come before you, Mr. Chairman. and members of the committee. We've provided for you a fairly large briefing binder as well as a summary of the key points we want to make today as well as a copy of the presentation. I know the binder has a lot of material in it because part of our objective here is to provide you with some of the information to help you in making an informed decision around this serious issue.

The second purpose of it might be if you're having trouble sleeping at night this would, I'm sure, help you get to sleep reading it.

Another point I would like to make is just, given at this time of the year, I give you full marks for this busy agenda this close to Christmas when I'm sure there's lots of things going on with families and committees. I have a high degree of regard for those who stand and serve in public service, so just at the outset, let me say to all of you I wish you a very happy and blessed Christmas.

CropLife Canada appreciates the opportunity to provide our comments on the feasibility of a cosmetic lawn pesticide ban on Prince Edward Island. Just by way of introduction, CropLife Canada is the trade association that represents the manufacturers, developers, and distributers of pesticides and plant biotechnology crops here in Canada for use in agriculture, public health, and urban settings.

The industry is dedicated to the development of technologies that are safe to humans and the environment and that provide benefits to all Canadians. By adopting a philosophy of responsibility and stewardship, we are helping to safeguard Canada's natural resources and our agricultural future.

For example, here in Prince Edward Island, we have worked closely with growers, the departments of agriculture and environment, and the agri retailers on the collection and recycling of empty pesticide containers and the collection and disposal of old, unwanted, obsolete pesticides. Both of these are important stewardship programs for CropLife Canada that date back as far as 1989 when the whole notion of the green agenda was not very high on the radar screen in the public at that time, but certainly something that we've been involved in now for nearly 20 years.

Just for example, in excess of one million kilograms of obsolete, unwanted pesticides have now been picked up from farms across the country and safely destroyed - I think an indication that truly our industry puts stewardship first.

One of the things that you don't often hear about in debates like this around the urban use of pesticides is about the real benefits that pesticides offer the homeowner. I mean, why do we have these products? The reason is they must bring some benefit to society. Pesticides help to eliminate the health, environmental and economic damage that can be caused by insects, weeds and plant

diseases. Whether it's an insecticide for controlling disease-carrying mosquitoes, a herbicide to manage noxious weeds, or a fungicide to help maintain golf greens, pesticides play a key role in controlling or eliminating pests that threaten our food supply, public health and the environment.

By using pesticides appropriately, there are many benefits to homeowners. Scientific studies show that healthy, well-maintained lawns reduce surface temperatures by 18 to 24 degrees Celsius in comparison to bare soil and 10 to 15 degrees in comparison to other vegetation or poorly managed grass. Healthy lawns have the ability to trap and hold rainfall better than most services, and trees absorb pollutants such as carbon dioxide and sulphur dioxides in urban environments.

CropLife Canada and our member companies would like to address the committee's focus on health and safety of our products, whether used in urban or agricultural settings. We share with Islanders and all Canadians a common concern about the impact of the environment on health, and this is why we support the rigorous assessment our products are subjected to prior to being offered for sale or use.

The committee has seen citizen petitions, and we acknowledge that this is an indication of the strong feelings that people have about health and safety here on the Island. I want to say to you: we share the goal of doing more to reduce risk and increase safety and the responsibility of our products. I would submit that your goals and society's goals are our goals.

Yes, I work for a trade association that represents large companies like DuPont, Bayer, Monsanto, and Syngenta, but I'm no different than any other citizen. I've got children. I've got grandchildren. I've got neighbours. I've got friends. Neither I nor our member companies or the staff that work for them have any interest in putting products into the marketplace that would jeopardize the public's health or the environment. So I think we're all on the same page in terms of the goal that we share.

We also recognize, based on our research, that Islanders and Canadians may not be aware of the high degree of regulatory scrutiny our products receive before ever reaching the consumer. In order to gain permission for commercialization of a pesticide in Canada, our members must submit to Health Canada's Pest Management Regulatory Agency scientific data outlining any impacts these products might have on the environment and the health and safety of all Canadians. This applies to all products, whether they're synthetic chemicals, organic chemicals, biologicals, organic alternatives, all of the kinds of terminology that you hear. Anything that has a pest control purpose has to be scrutinized and registered with Health Canada. Similarly, whether it's used by the municipality, by the homeowner, or by the farmer, it has to be scrutinized and meet Health Canada's rigorous regulatory requirements.

This is the law, and the law in Canada is perhaps the most modern and rigorous of any regime in the world. The new *Pest Control Products Act* came into force in 2006 to ensure that the legislation governing the regulation of pesticides fully incorporated up-to-date science and pesticide evaluations. Based on the revised legislation regulations, the entire development process for any active ingredient in a pesticide consists of up to 160 different health, safety and environment tests and studies, including for diseases such as cancer. On average, only 100,000 active ingredients makes it from discovery in a laboratory through to full registration and

commercial release because the hoops that one has to go through - rightly so - to demonstrate safety to the public and the environment are very rigorous.

Only products that pose no unacceptable risks to health and the environment are registered by Health Canada's Pest Management Regulatory Agency. That's the standard that must be met. When something goes for sale, Health Canada is prepared to stand behind that and say that this product poses no unacceptable risk to the health and the environment used according to label directions. No different than, quite frankly, a pharmaceutical product. Dr. Donna Hougton will give you more detail on their process in her presentation.

I just want to hit on a couple of key themes. The safety screens include special reviews for impacts on children, workers or farmers who apply the pesticides, and bystanders - which is another way of saying neighbours - that might be exposed from me using it on my lawn. They look at the potential for products that cause disease, including cancer. They include looking at if, and how, children might be exposed through contact with lawn and garden usage. They take into consideration cumulative exposures as well.

In addition, the science underpinning these reviews and the requirements for studies are all based on international scientific opinion by global agencies such as the World Health Organization, the Organization for Economic Cooperation and Development, and the Food and Agriculture Organization.

Finally, the *Pest Control Products Act* also requires that pesticides registered before 1995 - sort of older products - be reevaluated against the new regulatory science at least every 15 years. So this is how the public can know that the new stuff might be okay, but what about that product that was developed 40 or 50 years ago, is it still safe? This is a statutory requirement that they be reevaluated.

One of the key considerations that the public have around the health relative to pesticides is concerns about cancer. Some groups have made serious allegations regarding the impacts of pesticides on cancer. Yet upon scrutiny, Canadian and international experts have found that there are no links between common lawn and garden pesticide active ingredients and cancer.

For example, the most commonly used active ingredient in lawn and garden, turf and other urban applications, as well as in agriculture, is the ingredient known as 2,4-D. This ingredient has been the subject of numerous international studies and Health Canada has conducted an extensive reevaluation of this ingredient. In your binders, you will see the multi-page report from Health Canada on the reevaluation of 2,4-D. Health Canada concludes, along with other international bodies - and this is a multi-year study. This is not something that, you know, consulted in the back room for a couple of months. Years and years of analysis of data.

Health Canada concludes, along with other international bodies such as the World Health Organization, regulators from the US, New Zealand, the European Commission and a joint World Health Organization, Food and Agriculture Organization Commission, who all agree. and I quote:

There is no evidence of carcinogenicity, cancer-causing, carcinogenicity in the animal toxicity studies and that the epidemiology studies show no clear association between exposure to phenoxy herbicides and human cancers.

One report that claims to link pesticides with cancer was produced by the Ontario College of Family Physicians. You and I highly respect physicians and doctors. They're key

professionals in our community. I have no quarrel with the doctors, but we do have issue, as do others, with the findings of their literature review. Upon detailed scrutiny, this report was found to have significant flaws in its methodology and conclusions. We have provided a copy of a review done by some of the most foremost Canadian toxicologists, Cantox, for your reference. And this study, because of the implications of its findings, went around the world. In the United Kingdom its pesticide safety director also weighed in on the study and found it similarly flawed and no need to adjust their risk assessment or any of their measures in regulation relative to pesticides as a result of that study.

Just recently, and importantly, another landmark piece of work as it relates to cancer - the International Agency for Research on Cancer published a study this July looking at the attributable causes of cancer. This is a body made up of international experts on the causes of cancer and who are dedicated to identifying ways of preventing cancer. Their experts dismissed the claim of activists that substances such as pesticides were the cause of cancer. They concluded and I quote again:

Given the lack of evidence linking pesticide exposure to human cancer risk, no cases of cancer can be attributed either through occupational or non-occupational exposure to this group of agents.

End of quotation.

Finally, the American Institute for Cancer Research recently released a comprehensive report on diet and causes of cancer. Their quote is this:

Currently, there is no substantial epidemiological evidence that any of these substances, i.e. pesticides, singly or in combination as currently regulated and usually consumed in water or in foods and other drinks, has any significant effect on the risk of cancer.

I've spent a fair bit of time detailing this issue because it is one that becomes very much part of this public policy debate. So, quite frankly, you expect probably to hear from the industry guy: No, no, everything is safe. You probably expect to hear from those who have a different view that no, there's a big problem here. These people that I've quoted tonight, Health Canada, the international associations, these international groups, these are the third party independent, not paid by industry, third party arbiters. This is what they are saying. This is the science as it relates to the safety of pesticides as it relates to cancer.

Other cities as well have taken up the banning of pesticides on a municipal basis. The end result has been a patchwork quilt of public policy contradictions, unnecessary and costly regulatory duplication, and poor enforcement. Some of the restrictions based on the type of pesticide, some on the month of the year, some on the type of use, some ban them for indoor use, and some ban them for outdoor use, some ban them on golf courses, and some do not ban them on golf courses. A real hodgepodge. Importantly, not one of the municipalities has produced data that a cosmetic ban - whatever that definition means - has achieved any measurable health or environmental result.

Now I want to address the issue of - this is just an urban issue and not an agriculture issue. Because the reality is, nothing could be further from the truth. Mr. Chairman, and members of the committee, it makes little sense to ban products that contain the same active ingredients in lower concentrations - which is typically the case in urban - that have been fully scrutinized by the same regulatory authorities under the same legislation as those for agriculture. Many Canadian communities, including here on

PEI, are a mix of rural and urban, with boundaries changing all the time, and in some cases with farmers still operating within municipal limits.

I would ask the committee members to consider this. Why should pesticides accepted for use in farms and in forestry be subjected to different rules when used in the city? You cannot have a double standard when it comes to health and safety. Either these products can be safely used by following label directions on the farm and by the homeowner or they cannot. If they are not safe for use by the homeowner, by extension then, they are not safe for use by the farmer. They're the same products - 2,4-D, glyphosate (Roundup). These are the same products.

If they are banned for homeowner use, then I ask: Would they not have to be banned for farmer use? Otherwise this would imply a lesser value on the health and safety of rural people than of urban people. Something, assuredly, none of us subscribe to. I know CropLife Canada does not and I know Health Canada does not. That is why they have determined - that is to say, Health Canada - has determined that the same active ingredient is either acceptable for use in both situations or it is not. And I would submit to you that this is an important public policy and science consideration, maybe even an ethical consideration, for this committee.

Well, what should be done? I'm getting on in my time limit. I'm going to jump right to the end here, Mr. Chairman, and members of the committee. We recommend a policy of integrated pest management which is about using the right tool, at the right time, in the right way, in the right place. It's about educating and encouraging homeowners and farmers alike to learn more about the safe, proper use of pesticides in whatever setting they are used. It's about, first and foremost, preventing the pest infestation so that you don't have to use a pesticide. But then if you do, if there is an essential reason to use them, you pick the right tool, and that could be biological, it could be manual as i.e., in pulling up a few weeds, it could be cultivational, it could be biological. You pick the right tool, use it in the right way, in the right place, on your lawn, not on your neighbour's lawn, at the right time.

In so doing, by practising integrated pest management, then you reduce the risk. (Indistinct) relates to how the homeowner uses it, but then you're addressing the larger question of how pesticides are used in all environments - urban, forestry and agriculture - and thereby really do something about further reducing risks to the public's health and the environment, and in so doing, eliminate or substantively reduce the non-essential use of pesticides.

Finally, I would just ask you to join us in advocating a full life cycle approach to the management of our products through active and engaged stewardship.

Thank you very much, Mr. Chairman, and with that, I'll turn over to my colleague, Dr. Donna Houghton.

Chair: I think we are going to take a couple of quick questions, just on that presentation.

Cynthia, and then Jim.

Ms. Dunsford: I have several, but I -

Chair: We're going to come back to questions -

Ms. Dunsford: No, I know, but there are just so many.

Do you think smoking causes cancer?

Lorne Hepworth: Thank you for asking the question about smoking. Smoking does cause cancer, and I say that because Health

Canada requires in law that if you're going to sell cigarettes, you are required to put in graphic pictures -

Ms. Dunsford: That's right.

Lorne Hepworth: - and messages about the deleterious health effects of smoking. Unlike for pesticides, where Health Canada actually approves and registers the product and says it's safe if used according to label directions and does not cause cancer.

So that's the graphic difference. Health Canada on one hand says: These cause cancer. In this case, they say: We do many tests, and based on our tests, if you use it according to label directions, it does not present any unacceptable risks to public health.

Ms. Dunsford: Yeah. The only reason, and I know you've probably gone through this before, and I have to ask it, is that would you at least agree that there is a slight possibility that in 10 to 15 years that science will have changed and improved and may show that there could be different results in some of these studies? Would you even entertain a small chance that that could happen with regards to pesticides?

Lorne Hepworth: There's a huge difference between the two products. I know some people -

Ms. Dunsford: I understand -

Lorne Hepworth: - try to link them.

Ms. Dunsford: I'm just asking that question.

Lorne Hepworth: And what I'm saying to you is -

Ms. Dunsford: (Indistinct) smoking -

Lorne Hepworth: - all the best -

Ms. Dunsford: - take the smoking away, I'm asking now -

Lorne Hepworth: Sure.

Ms. Dunsford: - do you agree that in 10 to 15 years that science may actually improve and change, and there could be a tiny possibility that pesticides could be shown to be harmful in a very small way?

Lorne Hepworth: I can't say there's zero risk, but I doubt it very much. The reason I do is, quite frankly, when it comes to pesticides, as you'll see in one of the papers in your binder, pesticides are actually part of the solution in terms of dealing with cancer. That paper is a foremost international paper that was done that made the point that by using pesticides we actually increase the production of fruits and vegetables which have been shown to reduce the incidence of pesticides. That's the point that paper makes, that pesticides don't contribute to cancer, they actually decrease the incidence of cancer.

Chair: I'm going to give Jim one question and then we're going to go to Ms. Houghton's presentation.

Mr. Bagnall: I've got actually two here and the first one is -

Chair: They'll be short though, right?

Mr. Bagnall: - you had talked about Health Canada and the testing that they do on your pesticides to approve them. But isn't it true that actually the companies do the testing and supply the data to Health Canada and Health Canada does not do the testing at all? They read your data, make their decision based on your data?

Lorne Hepworth: Yeah, it is, it's very similar to what's done in pharmaceuticals. The companies have to bear the expense, roughly $200 million, of getting a product

registered. However, the important distinction here is we don't get to decide what tests and say: Okay, here look at the stuff we did. Health Canada, in conjunction with the world international community that I talked about - WHO, etc. - they're the ones that set what tests we should do. If they decide there's more need to be done, they will require them to be done and we will do them.

So it's not just Health Canada, it's like the EPA, Australia, Europe, they're all involved in regulating and setting the standards of testing.

Mr. Bagnall: And the other question, just very quick here, is that you made reference to when you were talking that communities had placed the bans on pesticides already, that there were studies that haven't showed whether there was a health improvement. Where are those studies and who are - because that's the first person that we've talked to here that has actually said there were studies that had been done on the health issue. Because nobody else seems to know about any that's done and the results of any.

Lorne Hepworth: I don't know of any either that have shown measurable data. The one study that I am aware of was the City of Toronto, who a year or two after their bylaw had been in place, reported not any health or environmental benefit, but reported on whether in fact pesticide use had gone down. In fact, the city's use had gone up.

That's not a big surprise, because quite frankly, cities are one of the biggest users of pesticides in a form that most of us take for granted but don't realize it's pesticides. It's called chlorination of your water. That's probably the single biggest use of pesticides maybe in the world.

Mr. Bagnall: So there's no studies on health.

Lorne Hepworth: Not that I'm aware of.

Mr. Bagnall: Okay.

Chair: On your first question, Jim, we're going to get PMRA in so we can discuss that a little farther.

Okay, we're going to ask Dr. Houghton to do her presentation. We'll open it up for a few moments.

Dr. Donna Houghton: Thank you, Mr. Chairman, and good evening everyone.

My name is Dr. Donna Houghton. I'm a PhD toxicologist with a specialty in pesticide exposure assessment. As a toxicologist, my role at Syngenta is to plan and review the results of animal toxicology studies. These are studies that are conducted in laboratory animals that assess a chemical's potential to cause adverse health effects. I also prepare both occupational and bystander exposure risk assessments on pesticides in preparation for making submissions to the PMRA.

I'd like to thank the members of the standing committee for the opportunity to express my opinion on the subject of the proposed province-wide ban on these pesticides for what are viewed as nonessential or cosmetic uses.

The issue of pesticides in health has become a very emotional, political and controversial one and, unfortunately, it's been fueled by a great deal of incorrect information. As a scientist, what concerns me the most about this fact are primarily two things. First of all, that decisions could adversely effect human health in the long term may be made based on incorrect or misinterpreted scientific data, and that this information may be perpetuated in the minds of the general public.

Secondly, that the minute risks associated

with the use of these products has been exaggerated to the point where the true, significant risks to public health are not receiving the full attention that they deserve. Basically, we should be focusing our precious resources and efforts in the areas where significant risks occur so that we can indeed make a significant impact on improving public health.

When the large body of scientific evidence on this issue of pesticides and health effects is reviewed, there is no convincing scientific evidence indicating that exposure of bystanders to pesticide-treated lawns or gardens will increase the risk of incurring adverse health effects, including cancer.

Despite what the general public has been led to believe, pesticides are the most extensively researched and regulated group of chemicals sold in this country, even more so than therapeutic drugs. Canada has one of the most stringent regulatory systems in the world, and as Mr. Hepworth mentioned, the Canadian Pest Management Regulatory Agency, a division of Health Canada, is responsible for reviewing approximately 160 scientific studies that must be submitted by chemical manufacturers when an application for a registration is made.

The PMRA employs more than 400 scientists to perform this task and they err on the side of caution to ensure that their mandate to protect Canadian citizens and the environment is met. A product must be approved or registered by the PMRA or it cannot be sold in Canada. The studies that are reviewed fall under the following sections of the submission:

Number one, the chemistry: of the active ingredient in the product - that's the chemical that actually conveys the mode of action - as well as the formulated product. That's the product in the jug or in the bag that the farmer or lawn care operator buys off the shelf. It has additional things added to it that allow the active ingredient to be dissolved in water.

Toxicology: these are the results of the tests on laboratory animals that indicate whether or not the product has the potential to cause things like birth defects, reproductive effects, damage to DNA, cancer, effects on the nervous system and endocrine systems.

Exposure, via the diet, occupationally or through by standard contact with treated foliage, residues in the crop and its byproducts, if it's an agricultural use; metabolism data to demonstrate how the chemical is broken down in plants and animals. We have to submit information on environmental toxicology, chemistry and fate of the chemical in the environment, and its effects on non-target organisms and also efficacy. We have to demonstrate that the product is actually effective for the uses it's being submitted for. But the areas I'm going to focus on tonight are toxicology and exposure.

The fundamental principle of toxicology is that the dose makes the poison. The risk associated with using a pesticide is a function of the inherent toxicity of the chemical, but also the amount of exposure that a person gets to it. So by keeping one or both of these two factors as low as possible, the risk involved with contacting any kind of chemical - whether it be pesticides, therapeutic drugs, household cleansers, and even natural cancer-causing substances that are found in our food, and believe me, there are many of those - is minimized.

Pesticides can be used safely because the dose required to cause serious health effects in humans is significantly higher than the dosage required to control the target pest. In addition, our exposure to pesticides, which equates to our dose, is extremely low, provided the label directions are followed. This is particularly true of bystanders contacting treated turf as demonstrated by

the Harrison Solomon studies.

Most of the concern, actually, regarding the use of pesticides for urban cosmetic uses seems to be focused around concerns regarding cancer. Now before discussing allegations that pesticide exposure causes cancer, I think it's important to explain how chronic toxicity studies are conducted in order to determine whether or not a chemical can cause such long-term health effects. Chronic toxicity refers to the persistent health effects that can occur as a result of daily exposures to a chemical over the course of a lifetime. So to mimic this for humans, animals are exposed to a range of dose levels of the chemical, usually through their diet daily throughout the entire course of their lifetime. This is done in the laboratory. The doses administered in a single study range from very low, in some groups of animals, to extremely high in the top dose group, and there's always a control group in these studies that don't receive any chemical at all.

During the study the animals are examined for physical and behaviourial effects, and at the conclusion of the study an external examination is done, a full post mortem is conducted, and all tissues are examined microscopically. We look at everything, all the organs, blood, bones, hair, the whole kit and caboodle.

The results from the treated versus the untreated groups of animals are compared to determine whether or not the chemical has the potential to cause cancer and other health effects. Similar studies are also conducted to check for the potential to cause birth defects, reproductive and neurological effects. Now what most people in the general public don't know is that health effects must be observed in these chronic studies or they're deemed invalid by the regulatory agencies. They're sent back to us and we're asked to repeat them at higher dose levels. The reason for that is that all toxicologists that are working for regulatory agencies realize that any chemical, regardless of whether it's synthetic or made by Mother Nature, will cause health effects if you dose high enough. The whole purpose of these chronic studies is to stress that animal's body sufficiently that you can identify what the target organs are and what kind of effects you will see in poisoning types of situations. If you don't dose high enough, that goal cannot be achieved.

What we then do is we look at all of the data in the database and we determine a dose level in the most sensitive species where we don't see any effects occurring, okay? We call that the no adverse effect level. This dose then becomes the basis for a risk assessment, because what we're trying to do with this animal data is try to find a dose level that people can be exposed to that will not be harmful to them over the course of a lifetime.

So we take this dose that causes no effects in animals and we apply a hundredfold safety factor to it. We reduce it a hundredfold to account for the fact that these studies are done in animals, not in people, and to account for the fact that there could be variation within the population in how someone would respond to a chemical. For example, the elderly or the very young. This gives us a dose that we feel should be acceptable for human exposure. If there is any evidence at all in the database that young animals are more susceptible than adults, then we employ an additional 10X safety factor, making the total safety factor a thousandfold.

The results from our exposure studies have to demonstrate that exposure to people would be less than this safe dose or there's no registration granted.

With respect to consideration of children in the risk assessment process, several animal toxicology studies address exposure to the

unborn, nursing and young offspring, including the developmental toxicity studies that are conducted in two species. We conduct a reproduction study over the course of two generations and we have a developmental neurotoxicity study that looks at learning, memory, behavior and effects on the brain. These studies are considered when we select this no adverse effect level for human risk assessment.

In addition, during the exposure risk assessment, not only is dietary exposure of children considered, but also exposure through the skin as they crawl across treated turf, hand-to-mouth activities - because they do put stuff in their mouths - toys going in the mouth, which is considered object to mouth, mouthing of grass itself, and consumption of treated soil. These are all part of the risk assessment that both industry and the PMRA (Indistinct). These exposures are then added together and again, the total has to be less than this safe dose with those safety factors incorporated or the pesticide is not approved for use.

There's been a growing concern, as Lorne mentioned, promoted by various groups that exposure to pesticides maybe a major cause of certain types of cancer. The concern has been fueled by some epidemiology studies of pesticide manufacturers, applicators, and farmers who've had very high exposures and that are suggestive of a very weak association with certain types of cancers, non-Hodgkin's lymphoma primarily.

There are many studies suggesting that pesticide exposure increases cancer risk in these populations, and many demonstrating that they do not increase risk. However, as a scientist, when developing an opinion on this subject, one must consider the entire body or weight of evidence on the subject. One must consider the toxicology data in conjunction with exposure data and the epidemiology data in a weight of the evidence approach. Certainly, for the epidemiology data, there is quite a wide range in variation in quality of studies, so the studies that are of higher quality have to be given better or heavier weighting than those that are not as well conducted. If you look at this, all of the data together in a weight of the evidence approach, the conclusion is that there's no association between pesticide exposure and various alleged health effects.

Epidemiology studies are studies of human populations that try to associate a specific purported causal agent with a disease such as cancer, and there are many flaws in these types of studies that the general public is not aware of. That doesn't mean they're not important; they're still important to do them. However, they usually have very small sample sizes, which limits their statistical power, and you might actually find it rather surprising to find out that pesticide exposure itself is not normally measured in these studies. There aren't any samples taken from these people in the vast majority of studies. That's because when we're looking at epidemiology studies of cancer they tend to be what we call retrospective in nature. They look backwards in time. You actually start out with a population that's already been diagnosed with cancer and you ask them to remember or to recall what they were exposed to 10 to 20 years earlier.

Now the reason that exposures 10 to 20 years earlier are important is because there is a latency period or a delay between the time that a mutation in DNA occurs and that cancer actually gets started to the time that it's actually diagnosed, and that delay can be as long as 20 years.

Well, it's extremely difficult to get accurate information out of someone when you ask them to try to remember what they were exposed to 10 to 20 years ago, and we call that recall bias. It's a major flaw in epidemiology studies.

Chair: We're getting to the point we only got five minutes left. So we have a few questions that we want to put forward too.

Dr. Donna Houghton: Okay. Some of the other flaws of epidemiology studies are that they also don't take into account what we call confounding exposures which are exposures to other cancer-causing agents that could occur during the same period of interest.

Lorne mentioned that the Ontario College of Family Physicians had come under extreme scrutiny. It did, in particular by one international body, the UK Advisory Committee on Pesticides, that made the comment that they totally disagreed with the conclusions regarding tumors. They felt that this arose from serious discrepancies that were employed in the review, in particular in the selective reporting of data to support positive associations while ignoring studies that showed that there was no association between pesticide exposure and cancer. The Cantox review, of course, is also supportive of that.

Lorne mentioned to you that there a number of international bodies that have taken a weight of the evidence approach including IARC and the American Institute of Cancer Research on diet and cancer that have concluded that there was no association.

I think if you haven't asked Dr. Linda Van Til to come - have you asked her to come and talk?

Chair: No.

Dr. Donna Houghton: I would suggest that you do that. She put out a report back in February on cancer trends in PEI which I think that you will find interesting. I won't go over those because she should do that herself, it's her data. But I think it's important to note that she commented that the incidence of childhood cancer is not increasing on PEI. It's been stable over the last 10 years, which it has also been throughout Canada. But she also mentioned that there was no rural or urban pattern of incidence in her study, and also, she pointed out several things that really people should be focusing on.

Seventeen per cent of the population on PEI still smokes, okay? Less than 33% of Islanders consume the recommended daily amounts of fruits and vegetables. Over half were physically inactive. Over 20% were obese, and 25% were heavy consumers of alcohol. These are all risk factors for cancer. So I think probably the greatest contribution that anyone could make out here in trying to improve the public health out here would be actually to address those factors. That's where the attention needs to be focused.

So I hope the committee has found my perspective helpful, and we'd be happy to entertain any questions.

Chair: Thank you very much.

Paula has a question.

Ms. Biggar: Just as a followup to some of your studies around pregnant mothers and children. We heard a lot of information about ADHD and learning disabilities and breast-feeding. What kind of data do you have or information that you could share that would lead us to believe that children are being protected? Or how can we be assured that they are being protected?

Dr. Donna Houghton: Okay. In the two-generation reproduction study we start treating animals before they're actually mated, and then they're treated all during their pregnancy. They're treated all during lactation. So the pups then are actually getting exposed through the milk, and then if they start eating diet it's also in the diet, so they get a double whammy there for a period of time. They continue to be exposed

throughout their life, like, until they reproduce again and produce another litter. There are all sorts of health assessments that are taking place during that time and there's also a post mortem done on all of those animals, too, so that we can see if there's any changes in terms of the brain, any organs in the body, blood chemistry, and so on.

In addition to that, the developmental neurotoxicity study is slightly different. Again, we start by dosing pregnant animals, but then when those animals are born they're put through a series of tests that test, actually, memory and learning. They're maze type tests because it's difficult to do on rodents, okay, but there is a way of testing that. Also, we do complete pathology on the brain and compare them to non-treated animals so that we can determine whether or not there's been any changes caused by the chemical itself.

Chair: Okay, we have to - we're getting real tight on time.

Jim.

Mr. Bagnall: One quick question. In your comments you mentioned and you mentioned all the time that if the product is used as directed -

Dr. Donna Houghton: Yes.

Mr. Bagnall: - there's no chance for cancer. What happens if it's not used as directed, if it's used extensively over and above the allowable limits? Will it cause cancer?

Dr. Donna Houghton: It would have to be used far in excess of allowable limits for a prolonged period of time. A person would have to be exposed for many years before there would be a problem. It is built into the risk assessment by including those safety factors. We put those in as a buffer to try to account for situations where somebody may actually be applying too high a rate or may be very sloppy with the product or maybe they're not wearing the protective equipment and so on. But it's like pharmaceutical drugs. You have things on the label that say: Take a certain dose and don't exceed it. With pesticides, you're supposed to wear certain protective equipment and so on.

Mr. Bagnall: So what's excessive?

Dr. Donna Houghton: That would depend on the chemical. They're all different. That's another thing. You can't lump pesticides together as all having the same properties, just like you can't lump all drugs together as having the same properties.

Lorne Hepworth: But the scenario you're worried about is what the regulators take into consideration. They do the worst case scenarios. What if?

Dr. Donna Houghton: Always the worse case.

Lorne Hepworth: What if they got it every day of their life? That's why they build these up to 1000 times safety margins in there.

Mr. Bagnall: So basically, though, what you're told me, though, if it's not used in proper doses and if it's used in extensive periods of time over and above the allowable limit, that it can cause cancer.

Dr. Donna Houghton: Well, no, not necessarily, because a lot of the chemicals actually don't cause cancer even at high doses. Some do, but not that many actually, and so it depends on the situation. You'd have to have years and years and years of excessive exposure. Like I mean, these studies that we do in animals are so severe. You're talking about feeding massive doses to an animal every single day in its food. I mean, we don't get that kind of exposure. Its

orders of magnitude higher than what we get.

Mr. Bagnall: Just one comment this afternoon in one of our presentations tells us that we are using more than the average, well above the average, in pesticides here in PEI.

Dr. Donna Houghton: On a daily basis?

Mr. Bagnall: Well -

Dr. Donna Houghton: Per person?

Mr. Bagnall: Well -

Dr. Donna Houghton: Because that's what you would be interested in.

Mr. Bagnall: - our overall consumption on PEI was a way up over what the national average. I'm not sure which presentation -

Lorne Hepworth: I mean, compared to what? I mean, what we do know about Canada -

An Hon. Member: It was the Institute of Island Studies that presented that data.

Lorne Hepworth: What we do know about Canada is, relatively speaking, we are very low users on a per unit of acre basis to many countries in the world. Why? Well, you know, you look outside at this time of the year. We have weather conditions that take care of lots of pests and we don't live in tropical climates and some of those things that can lead to high usage. So relatively speaking, Canada is a low user. Some sectors are higher than others. Fruits and vegetables might require more than wheat, for example, but relatively speaking, we're very low users.

Chair: We have two quick questions and we're out of time. Rob, first.

Mr. Mitchell: Just a couple of quick questions. The most used chemical in cosmetic pesticide use on lawns is what again?

Dr. Donna Houghton: 2,4-D.

Mr. Mitchell: 2,4-D. You mentioned that some were more causing than others. Is 2,4-D - where does it lie into the -

Dr. Donna Houghton: In terms of -

Mr. Mitchell: - most dangerous of chemicals?

Dr. Donna Houghton: In terms of chronic effects?

Mr. Mitchell: Yes, in terms of cancer (Indistinct).

Dr. Donna Houghton: 2,4-D is probably the most extensively researched pesticide that we know of today and it's been demonstrated in multiple studies - like, over 4,000 tox studies have been done on it, and I don't know how many -

Mr. Mitchell: Even on over usage of -

Dr. Donna Houghton: It does not cause cancer. It does not cause birth defects. I can actually send you a study, a Garabrant, a published study from the literature that goes through all of that, if you'd like.

Mr. Mitchell: Perfect.

Lorne Hepworth: Just to that point, the eight most commonly used pesticides in lawn and garden applications - because of all the, if you like, interest around the safety of these products - Health Canada, over and above what other jurisdictions have done, have either completed, or are doing, sort of a special review of all those products to make

sure that they're safe for home and garden use.

Chair: One quick question here and then we're done.

Ms. Dunsford: Just a quickie, yes or no question. Is 2,4-D banned anywhere that you know of?

Lorne Hepworth: Not that I know of.

Dr. Donna Houghton: Not that I'm aware of. I know there was - somebody tried to say it was banned in Sweden, but it's not.

Chair: Okay.

Lorne Hepworth: Some isomers might be banned but, you know, older products, older forms of it, but I don't -

Dr. Donna Houghton: But not as of today.

Lorne Hepworth: Thank you, Mr. Chairman.

Dr. Donna Houghton: Thank you very much.

Chair: Thank you for your presentation.

Dr. Coffin?

Dr. Robert Coffin: Mr. Chairman, we're having troubles with the audio visual. So if we can get going, I can go. If we don't get going, I don't go.

Chair: Okay, we'll see if we can get her going then.

Dr. Robert Coffin: So we're on the third computer now (Indistinct).

Chair: Take a two-minute break while they're getting it going, okay, and then we'll come back.

[There was a short recess]

Chair: I'd like to welcome Dr. Coffin. We've allotted him 20 minutes. Will it be all presentation or will we have time for questions?

Dr. Robert Coffin: Ninety-nine per cent will be presentation. Hopefully, it'll be quite clear.

Chair: I'll give you a five-minute heads up, then, when you're near time. Okay? If we have time for questions, it will be great. I need to go over here and you can go right into the presentation. Just introduce yourself for Hansard's sake, please.

Dr. Robert Coffin: Good evening, ladies and gentlemen, and fellow politicians.

Thank you for the opportunity to come here and speak tonight. I am here representing myself. I'm not representing anyone, but I worked at a number of jobs and I'll just explain that to you.

I work for Cavendish Farms as a researcher in potatoes and I do trials on many different aspects, including pesticides. My wife and I are part-time farmers. We're potato breeders and beekeepers, and I'm also an adjunct professor at UPEI and Nova Scotia Agriculture College. I do some teaching and research, and some of the projects I've been doing with graduate students are actually projects looking for reduced-risk pesticides. So every day for the past 40 years I've been involved in pesticide research, and I'd like to share some of my findings with you.

One of the key things I want to drive home here tonight, and I'll drive it home early on, the government of PEI is considering the banning of some pesticides used for cosmetic care in lawns and gardens. I know you've had some emotional presentations here, but I'm going to ask that you try and make your decisions based on good science.

So we'll go through a number of issues here.

The environmentalists - and we have to respect their opinions, because everyone is entitled to their opinion, and the political group is saying we're investigating the possible ban on some cosmetic pesticides in PEI. Some of the environmental groups are saying they want clean air and water and we want cosmetic pesticides to be banned from PEI, and some of the same materials that are used in lawn and gardens are used in the farming community, and the farmers are saying the proper use of pesticides on their farms helps to ensure good crops.

So it's very important, as I said, to be able to walk in another person's boots. They say: Walk a mile in another person's boots and you really get a feel for that, and we have to show respect. We have to have good dialogue, and it's important that we give time to consider what people are thinking.

Okay. I'm involved in education and I give public presentations. I teach a course at the University of PEI called Applied Biology and I am shocked, ladies and gentlemen, at the lack of information that our youth has today on some of the biological realities of this world. I'm totally shocked, and there needs to be a lot more inputs to upgrade that.

I'm going to share a couple of things with you. I test the students in a positive way. Now, as part of the course, I use potatoes as a model and I tell them we're having a good crop of potatoes, and does anyone see anything wrong with that picture. Some of them will look at it and they'll look at it. I had one class - and this is the absolute truth - where this one lady, after a long period of deep thought, said: Are they picking the potatoes before they're completely ripe?

Now, I'm deadly serious. Some people think I'm kidding, but I'm serious. So it struck it in my mind that we have a lot of work to do. The reality is today, ladies and gentlemen, that many people are not associated with farms or food production. Three per cent of the people are producing the food for the other 97% in Canada. That's a pretty big accomplishment on the part of the farmers.

Then I ask people: Where are we getting the energy to move my arms? And you tell them it's coming from the sun. Okay, that's where you got the energy to drive your car here tonight, from the sun. The sun shines. The green plants take carbon dioxide and water, splice it together and make sugar and starch. I eat the sugar and starch from the plants and I got lots of energy, and they give off a lot of hair - a lot of hot air - and carbon dioxide, okay? So this is the reality of our world and some people have trouble facing the fact.

So the sun shines on healthy plants and we have to keep the crops healthy for their leaves to catch energy from the sun. If the insects are eating them, the diseases are killing them, we're not going to get a good crop. So it's been emphasized here we have to produce high quality food. It has to be done in a safe and sustainable manner, and it has to be profitable for the farmers.

Now, let's go back 10,000 years and take a look at the evolution that's gone on. We've come a long way in 10,000 years, but we must be humble and go back and check out our past. Okay, if we go back 10,000 years and you invited me to your house for supper, we might not be too sure of what we're going to have for supper. My long-lost cousin is going to show up here pretty soon. Okay, they say the quickest way to get your family tree checked out is to run for politics. But anyway, this is my long-lost cousin here. But it was food and famine, okay? People didn't have a dependable supply of food and evolution did occur, okay?

So today, human beings are pretty ingenious. They've invented transportation and housing, and some days some of us are a

little bit too comfortable, okay? But we have to realize that a number of things happened. If we study the history of evolution of agriculture, horses were domesticated, ploughs were developed, and people started to be able to use animals to help out in the work, and some food production increased. But there were some problems, okay? There were problems that the world population grew. It was trouble to get enough dependable supplies of food to feed them, but the big jump occurred back about 75 years ago with the development and widespread use of synthesized nitrogen fertilizer and manufactured pesticides. That occurred back in the 1940s where we saw the big change started to occur there. So that occurred back about 75 years ago.

So today, right now, farmers are told that they must produce low-priced, high-quality food and we keep telling them they have to be more efficient. There's a lot of serious debates going on now with just how efficient farmers can be and can they pay the bills. Now, before the development of formulated pesticides and synthesized fertilizers, organic farming had been practiced for thousands of years, and the continued removal of nutrients in the soil without replacement led to declining yields, and there were quite a few crop losses due to pests.

So we keep thinking, many of us, that organic farming's new. The concept is not new. It was practiced for thousands of years. Now the big development was when they developed gasoline engines that the people who used to spend a lot of their time growing feed to feed their horses - when they got gasoline-powered tractors, you didn't have to plant part of your crop for oats and hay for your horses so you could devote more land to farming, okay? Tractors got so big that they got a little bit too big, okay?

But anyway, oil reserves now we know are being depleted, and the only source of renewable energy is from the sun. What's happening is the old expression - what goes around comes around. Now we're starting to grow crops to feed the iron horses, okay? We're starting to grow oil crops, canola, things like that. When the big debate is when you see a crop of canola - is that going to be used for human food or is it going to be used for tractor fuel? These are questions that keep coming up.

As I said, with modern technology 3% of the population are feeding the other 97% and Canadians enjoy some of the highest quality food at a very low cost. We would be the envy of many countries of the world with the large amount of food that we have. The farmers are in quite a stressful situation now trying to produce it and still make a living. The stores? They love having price wars. They're always willing to sell for less. We see these price battles going on all the time. So it is quite a crisis.

But as I said before, many people have no idea where their food comes from and we have to devote some time for education. As I said, major breakthroughs were made in the development of synthetic fertilizers where we could take energy and formulate ammonium nitrate, the diammonium phosphate could be mined as well as the potassium chloride, and we could mix this together and it would really make the crops jump ahead.

Now, come to your pesticides. Pesticide is an all-encompassing word and it means a chemical developed to kill an organism that is unwanted by humans. There's a pretty big list there. There are insects, fungi, viruses, bacteria, and weeds, and we have different options, chemical, biological and mechanical to go about trying to get rid of those pests.

So under the big list of pesticides we have herbicides, fungicides, insecticides, top

killers to kill potato plants when we want to harvest them, plant growth regulators, rodenticides to kill rats and mice, and bacteriacides. You'd be surprised how many of those products are in the cupboards of households in PEI from people who profess that they don't want any lawn and garden pesticides. They don't know they already have all sorts of them in their house and they're using them, and they won't give up the use of them. That's even the other part that's surprising, and I'll show you some examples here later tonight. So there's got to be some real eye-openers in this whole thing, okay?

Now, even antibiotics are pesticides. When you go to the doctor and you have a bacterial infection, they'll often prescribe an antibiotic. Antibiotic, if you take and translate it, it means against life, okay? You're trying to kill some bacteria in your body. You're taking an antibiotic. Penicillin is a classic example. It comes from a fungus. It kills many types of bacteria. It has saved millions of human lives, but it has also killed many people due to allergic reaction. So you can't always have zero risk as everyone would like to have. We must proceed safely but you can't always have zeros risks.

So PMRA, as has already been well explained here tonight, it's an agency of Health Canada. They give a very serious review of pesticides. They look at the efficacy. That means: What will they do? The other thing is they write their label text that you're supposed to follow, the rates, the timing, the wind speeds, what type of personal protective clothing you're wearing, and this goes for both farmers and for lawn care situations.

When a pesticide is registered for use by Health Canada, a PCP number is assigned to the product and you'll see it right on the label. Now, there are between 400 and 500 very well trained scientists at PMRA and they do give vigorous reviews to any applications that come in. I've participated years ago in writing labels and you go back and back and there's more questions. So it's nothing like rubber-stamping that some people say. It's a tough challenge to get cleared, right there.

Now I have to make one statement to the politicians here. If PMRA people are well-trained scientists, are you not trusting their judgement? I think that question has to be asked. Why are you sitting around this table here saying: Well, PMRA passed the registration. Are you people going to decide to de-register something that's already been cleared through the proper channels in Ottawa? I think that question has to be asked. I'm asking that you people, for you to think about and we'll come back to that in a minute.

Farmers, when they're applying pesticides, they have to follow label instructions. Here is a farmer applying, and there's a home gardener applying the material, and many times they're applying exactly the same material as the farmer is applying. Now, let's take a couple of examples and we're going to come back and visit this in a few minutes.

The Colorado potato beetles can destroy a potato crop in sheer numbers. Here they are eating, the adults. There's a farmer spraying to prevent the Colorado potato beetles from doing their damage. Here's the larvae just on a real feeding frenzy, 24 hours a day. These are research plots that I have. You can see the non-treated check plot in the foreground. These are all treated plots in the background. Certain insecticides are giving excellent control of the beetles. As the summer goes on, look at the check plot. Nothing left, okay? The beetles ate everything. Here it is in the fall, and trying to give an educational tour to growers to compare how different new products, some of them with reduced risk, are formed to

reduce Colorado potato beetle damage.

We're going to come back to this, because some of the insecticides that are used in the field, you can find them in kitchen cupboards in the province of PEI, and people don't even realize that they're the same materials.

There's late blight, a very serious disease of potatoes. It can destroy fields of potatoes. By itself, it's a dry rot and it causes a slow type of rot, and under the right conditions, if there's bacteria around, they'll get in once the integrity of the skin is broken, and you can get piles of potatoes looking like this. So you can have the total crop on a farm destroyed from late blight.

We've been doing all sorts of trials to assess the efficacy of different fungicides. Here's your check plots. Then, August 20th, the check plot was starting to get some disease in it. By early September, completely dead. These were plots that were treated with fungicides and they stayed alive right till the end of the growing season.

Mr. Bagnall: That was late blight?

Dr. Robert Coffin: That was early blight in this particular plot. That's early blight, okay? Early blight under the right conditions can be very devastating as well. There are a number of different fungi that can cause damage to leaves, but this here particular trial this year was early blight.

So there are some misconceptions out there we don't have time to go into them about organic, misconceptions about genetically modified products. I'll just touch briefly on them. There's been a lot of interest in organic farming on PEI and some people are pretty excited about it. But a couple of things: organic agriculture does have some valuable land management practices and it maintains soil organic matter and diverse microbial populations. But sometimes these things are not followed by conventional farmers, but the organic people do follow them, and there's some very good practices here. But sometimes organic has been reestablished for environmental reasons, which is good, and sometimes for profit reasons. They'll go to certain markets, and there's some misleading information. Some is feel-good consumers who don't understand the chemistry, and there needs to be accurate definitions and standards, and I'll give you a couple of examples here.

What does organic mean from a chemist's view, from a consumer's view, and the response of the plant? There's several materials used in organic farms that are toxins, okay? Copper sulphate has been used to prevent and control late blight. A high concentration of the copper ion, it's a biocide. It can kill a lot of organisms, okay? So a copper sulphate in high amounts, it can be dangerous, and it's used on some organic operations. Pyrethrum insecticides (Indistinct) use in some organic farms can rapidly kill fish. So we must recognize that.

These are potato plants that have been sprayed too many times with copper sulphate at high applications. It can actually kill the potato plants. At low applications it helps to suppress the late blight. If anyone thinks for one moment that Mother Nature doesn't have some serious toxins - if we're going on a mushroom-hunting expedition today and we're going to eat everything we gather, and I don't know my mushrooms, you better make your will out before we go, okay? It's that simple. Okay. Mother Nature makes some pretty powerful materials, okay?

Now, genetically modified potatoes. Many crops are genetically modified. Here's your beetle-resistant potatoes. Thousands of beetles were let lose and they destroyed the regular potatoes. Didn't hurt the genetically modified potatoes. There's the difference in the yield. Here is potato virus Y, stunted

yellow plants. This is a strain of potatoes with resistance to potato virus Y. Genetically modified plants had some benefits.

We're putting information into the plant from another species of plant, or some other organism, and hence you're crossing genetic barriers, and it does lead to some concern from people. I actually asked the lady here at the hearing here a couple of years ago who spoke: What did she think genetic modification was? She said: You're putting little monsters into those plants. There's the little monsters. She actually felt we were putting little monsters in there that were going to cause trouble. So there has to be a lot of education done.

When your committee, a couple of years, was considering banning some GMO crops, I said that would be unfair. I said: If you're going to get rid of the GMO crops, get rid of all GMO products, and if you got rid of all GMO products on PEI it would be quite a show. Because if we banned all GMO products today on PEI there would be more dead people tomorrow, more nudist colonies, and fewer cheeseburgers.

Seriously. Why? Seventy per cent of the cotton clothing we're wearing is genetically modified cotton. The insulin that diabetics inject into them, they don't come anymore from the pancreases from the slaughterhouse, from pigs and cows. That is made by genetically modified hamster cells. The cheese that we use, 99% of the cheese, the rennin to coagulate the cheese, comes from genetically modified yeast. I can go on and on and on. But people say: Gee whiz, I didn't know that.

There needs to be education, ladies and gentlemen. There needs to be.

Now, a reality check. There's a wide range of pesticide use by people in their yards and residences. How and why have the politicians of PEI considered banning the use of several products? The main target seems you're after are dandelions, and to me, as a beekeeper, I like having them around the bee yard, but I don't like having them in my lawn, okay? So it depends how you look at it.

Now going back historically, Mr. Chairman - I have about five minutes left here, I think.

Chair: You have six.

Dr. Robert Coffin: Yes, okay, good. We're going to go fast here. Okay, go back and study the history of pesticides, way back when we didn't have freezers and all sorts of preservation. Salt, salt fish, salt meat, it was a pesticide. It was used - and they're still using it in foods today. Look at the sodium content on the store shelves. My wife always says: Robert, don't buy that, it's got 25% salt in it, you're eating too much salt. It kills bacteria. It prevents microbial growth in food. It's a pesticide, okay?

In high concentration, if there's too much salt in your diet, a medical doctor will tell you, it can give troubles to your kidneys, troubles to your heart, and we've all had a little lecture on that. That's what your salsa looks like, you know, if the fungi gets going on it, okay?

Now let's start taking a look at some of the pesticides that are in your yard, in your garden, and in your house. Some of the paints that you use in your house they say will not mold, okay? Some of the stuff you paint your backyard furniture with - loaded with fungicidal materials, okay? It's a big one. Wallpaper that you put in your house - some types of wallpaper have fungicides in it. Did you know that? Okay, those are pesticides. I brought in a little show-and-tell here tonight. I have a box here. If I can get disconnected from this, I'll carry this with me. But I'll just show you a few things.

I did a little survey, okay, and if I look a little bit like Rick Mercer, I went on a survey, and I got myself in trouble by asking too many questions at some households. There must be every household in PEI has a can of bug spray, right? You're out in the backyard in the summertime at a barbecue and there's mosquitoes there and you're swatting at them and the host will say: Here's some Off, spray it. Spray it all over yourself and then you give it to your neighbor and he sprays himself and then they even spray some on your back. There's a PCP number on this product. Did you realize that? This is a registered pesticide. You're spraying it all over people. You're spraying it, okay.

Then you got some problems on your roses and your flowers. You dump some sevin on it. It's right on the - a whole list of things. This is the same stuff that a potato farmer uses, okay? It goes on and on, even Blasters here, this stuff said it will kill hornets and wasps and it says: Shoots to four meters. So I've seen people at their back say: I'm going to get him. Boys, I got him in the target and we're going to shoot them. This is a PCP number on it, okay? The number of products I could get, I could have filled 10 boxes here.

But the real classic - and I must say, Mr. Chairman, this is a real classic - I was in a household, I've been in several households, and the people said: I don't want any pesticides, I don't want these potato farmers using them, I don't use them on my garden, we don't have pesticides around the place. But I saw a couple of nice dogs and cats, and I said: Oh well, here goes. I said: Those are a couple of nice cats you have. Yeah, they're really special. I said: Do you ever have trouble with fleas? Yeah, but we fixed those fleas. That was the answer I got. I said: Do you have any of the flea medicine around? Yes, and then I stood back a little piece, and I said: I betcha that stuff you've got in your closet is exactly the same stuff that that potato farmer now is using down the road, and the householder said: No way, it couldn't be.

So anyway, the householder went to the cupboard, opened the door and took out a box, and I said: I betcha it says Imidacloprid on it. That's the name of the insecticide that potato farmers widely use. If looks could talk, the eyes got bigger as they looked, and they said: My gosh, it's Imidacloprid. They're taking it out - it comes in little packages - and they're squirting it on the back of the neck of the animal and it spreads all over the skin, stays there for quite awhile. The cat's patted by the kids. It's out on the lawn and garden, okay, trotting around the lawn and garden. It's the same material potato farmers are spraying on their potatoes.

So ladies and gentlemen, I'm going to wrap this up here. I've just got one or two more slides. Recommendations. I saw a bulletin board in Nova Scotia last week when I was there and it said: Joseph Howe was a famous politician in Nova Scotia. He lived from 1804 to 1873, well-respected politician, and he said: In making political decisions he always considered three things: what is fair; what is just; and what is for the public good.

I think you should think of those things when you make your decisions.

I'm going to close with this. I realize all of you politicians come to the table with a good knowledge base on many different things. You've had many different life experiences. I don't think there are too many people here trained in chemistry, toxicology, the physiology and metabolism of pesticides. Now, I say: Leave the decisions of banning pesticides to training people in PMRA, and if you do decide to ban some pesticides, how are you going to decide which ones to ban? How are you going to make that decision on a scientific basis, which ones are going to be banned? I'd

really like to know.

So thank you, Mr. Chairman, and for everyone for their patience. I've had to cover a lot of territory in a short time, but I hope I've given you something to think about.

Chair: You've definitely given us something to think about, all right.

Mr. Bagnall: Great presentation.

Chair: Yes, it was.

We have a couple of questions. I guess, Cynthia, I'll start with you.

Ms. Dunsford: Leaving the decisions to people who are funded by companies to come up with results for studies - I'm trying to figure that one out.

Dr. Robert Coffin: Let me clarify something with you, Cynthia. I worked for a major ag chemical company many years ago. I worked for Union Carbide. I was a research rep. I used to do the dialogue with the registration people. One thing: Not all of the pesticide trials were done by the company. We farmed out many trials to contract companies, and the government periodically did verifications to see if those companies were doing things properly. It is not fair to leave the impression that companies generate all their own data and it's never -

Ms. Dunsford: That question was asked earlier too, in one of the presentations, and the answer was that they were funded by chemical companies.

Dr. Robert Coffin: There are some, but not all, and I'm going to share my experiences with you. I did studies of gathering residue samples of potatoes all across Canada. We were told by the people in Ottawa: You gather residue samples of potatoes all across Canada, you gather some that are harvested 90 days after planting - and this is with systemic insecticide - and you gather the same samples 120 days after planting.

I gathered them up. I had five big walk-in freezers full from potatoes all across Canada. I received a call one day from the regulatory people in Ottawa and they said: You are still planning to test those in your lab? I said: Yes. They said: We would like half of each sample because we're going to test them in our own lab in Ottawa. I said: Fine, we'll split every sample. We spent many days splitting the samples. Every time I hear that statement, it makes it sound like the companies just generate all their own data.

My experiences in working in the pesticide industry, many times we had to farm it out to contract labs who were double checked by the government, and sometimes the government would come in and ask us for samples and do tests on them. I think that's fair and it passes a fitness test and they feel better in Ottawa, too, that they've double checked. Many times when they do a double check there is consistency in the numbers. But if they find something that's inconsistent, then the whistle is blown.

Chair: One followup.

Ms. Dunsford: Just a followup. With your very animated presentation, I guess I'm asking if what you're saying is that almost everything we eat, buy, do, touch, has some possible danger or even pesticide involvement -

Dr. Robert Coffin: There's dangers in everything -

Ms. Dunsford: - is that reason enough not to pursue a change in that area? I mean, yes, it's everywhere. I agree. But one of the things that I appreciate the most is that what you pointed out is that, if in fact this is

where we're headed is to try and to curb and to change this, we have a lot of work to do. Those products are a good example.

Dr. Robert Coffin: But there may not be anything wrong with these products. What I'm trying to say is many people are unaware, and there's some people I got those from -

Ms. Dunsford: You described when the person -

Dr. Robert Coffin: Yes.

Ms. Dunsford: - took the cat thing out -

Dr. Robert Coffin: Yes.

Ms. Dunsford: - you stepped back.

Dr. Robert Coffin: Because I thought they were going to get mad at me for contesting them, okay? I just got a little bit of -

Ms. Dunsford: I doubt that any one of us would step in front of a can of Raid and let it fly into our face.

Dr. Robert Coffin: Yes, but anyway that person -

Ms. Dunsford: So I mean, let's not pretend -

Dr. Robert Coffin: Some of those people -

Ms. Dunsford: - that we don't know the dangers of some of those products.

Dr. Robert Coffin: No, no. Some of those same people, after they realized what was going on, they're still treating their dogs and cats with that material. They've come to a pacification.

Ms. Dunsford: After all, that's how pesticides are tested. They're not tested on humans.

Chair: We are up to time. Just one question. Did you say the PMRA - I heard this a couple of times - how many scientists do they have?

Dr. Robert Coffin: Between 400 and 500.

Chair: But they're not doing their own tests?

Dr. Robert Coffin: Some of the PMRA people -

Chair: They must be doing something with 400 or 500 scientists.

Dr. Robert Coffin: Oh yes, they do some of their own tests, certainly they do, yes, yes. I'm saying it's wrong to say that all the data is developed by one - like, an independent ag chemical company. There are checks and measures and I have participated in the checks and measures.

Chair: We're going to have the PMRA in. We'll drill them on that.

Dr. Robert Coffin: Yes, and you can't have a zero risk, Cynthia. You can't have a zero risk. I turned on the radio tonight coming down here, 23 people killed in car accidents today in Oklahoma in a snowstorm. We can't have a zero risk. We want to aim to minimize risks but we can never have a zero risk.

Ms. Dunsford: Well, and I think that that's probably a good way to end because that's exactly what this committee is trying to do is to aim to minimize risks.

Dr. Robert Coffin: Well, how are you deciding what you're going to (Indistinct)?

Ms. Dunsford: So I guess the question is, is that are you interested - the people that we've heard from tonight, are we interested together in trying to implement ways to reduce or ban the use of pesticides for

cosmetic reasons on PEI? Is that something that you would even entertain? When we know that there's so many people that want it, how do we get to that place with everybody on the same page? As somebody mentioned earlier, we're all on the same page here.

Dr. Robert Coffin: Many of those people have heard emotional discussions on the radio and the press and that's what caught their attention. Sometimes when you sit down with them and explain the scientific part, they change their attitude.

Ms. Dunsford: The committee here has been - has not - we're not talking about being emotional right now. I'm just talking, I'm asking whether or not there is an interest to help us implement - what we've been asked to do by a motion of the Legislature was to come up with implementation for a province-wide ban on the cosmetic use of pesticides, and also look at the possible impact of how we're going to do that.

Dr. Robert Coffin: I took my time and energy to come here tonight to share some information with you to try to may you think seriously in your decision making. I'm not supporting the banning of pesticides -

Ms. Dunsford: Okay.

Dr. Robert Coffin: - that have been cleared through very thorough reviews by PMRA.

Ms. Dunsford: Okay.

Dr. Robert Coffin: But my role is education.

Ms. Dunsford: Yeah, no, that's fine.

Chair: It better be very short because we're overtime.

Ms. Biggar: Mr. Chair, could you clarify what we have been charged with as the committee?

Chair: I read that resolution out earlier on.

Some Hon. Members: (Indistinct).

Chair: Anyway, I'll clarify that.

I want to thank you very much for the presentation, and I really appreciate the time you've put into it and it was quite entertaining. We had a group that sang to us this afternoon and it was a very entertaining presentation this evening. That was terrific, and I want to thank the three presenters so far.

Our next presenter is the Canadian Cancer Society, PEI Division.

Paula, here is what the resolution says:

Therefore be it resolved that this Legislative Assembly give the Standing Committee on Agriculture, Forestry and Environment a mandate to fully review the implementation and potential impacts of a province-wide ban on the use of cosmetic lawn pesticides.

Ms. Biggar: Thank you.

Chair: Okay, good.

I'd like to welcome the Canadian Cancer Society, Prince Edward Island Division. You have 15 minutes for your presentation, and if you have time we'll have some questions within that. I'll give you about a five-minutes heads up when your time is drawing to a close. So I'll ask you to introduce yourself for the sake of Hansard and continue on with your presentation.

Dawn Binns: Thank you.

My name is Dawn Binns. I'm the executive director with the Canadian Cancer Society, Prince Edward Island Division, and I'm really pleased to be here this evening and to

hear the presentations.

I think I have a couple of challenges: one, to follow that very animated presentation; and two, it's getting late. You guys have gone through a lot of hearings. So part of my challenge is to give you some information, hopefully, that will help you be able to make the decisions around this table that you need to make.

Mr. Bagnall: (Indistinct) saying it's going to be hard to keep us awake, is that what you mean?

Dawn Binns: No, I didn't say that. It's late in the day, though. I would never, never say that, Jim.

You do have in front of you a folder that does contain our presentation, if you wish to follow along. Not very visually appealing presentation but a lot of facts in it. So if you wish to follow along it might be of assistance.

The Canadian Cancer Society is a national organization, community based, and our mission is the eradication of cancer and the enhancement of quality of life of people living with cancer. As you'll see, as a representation here, we are solely funded and supported by volunteers and Islanders across Prince Edward Island through their financial donations and through their time and passion.

We do work across the cancer spectrum. We work in prevention, we do advocacy, and we support people living with cancer. We provide information on all types of cancer and how to prevent it and we also fund research across the country.

But to get to the point of being here, our position as the Canadian Cancer Society is that since the ornamental use of pesticide has no countervailing health benefit, and the potential of harm exists, we believe that a ban on the use of pesticides on lawns and gardens across Prince Edward Island is the way to go. In fact, I have colleagues working in each province right now to make this happen. As you know, the Province of Quebec has taken these steps and the Province of Ontario, their newly re-elected premier has made open comments that they will be doing this as well.

So we have three recommendations we'd like to put forward. We believe you should adopt a province-wide cosmetic pesticide ban. We believe also, to make this effective, you need to implement a comprehensive public education program on alternative lawn and garden care methods, in conjunction with an Island-wide ban. And that you need to implement a ban on the sale and display of pesticides and fertilizer-pesticide mixtures intended for cosmetic use.

There are examples of this through Quebec. One of the biggest challenges, and I'll speak to this after, is people aren't allowed to use the product but they can still go buy it. How do you deal with that?

There's been a lot of discussion this evening on the issue of cancer and pesticides. I am not a scientist. I do have a team of scientists - not 400 - working in this area, and we do review the information and the research, and I want to make a few broad statements and then get to some specific facts.

If you look at the body of knowledge, as Dr. Houghton referenced, studies indicate that there may be a link between exposure to some components in pesticides and increased risk of some types of cancer. The evidence is not conclusive. Science has not established a firm link between environmental exposure to pesticides in the general public. Yet, we have not established that there's not. It's a really important distinction. We can't tell you for sure there is, but we can't tell you for sure that there

isn't. The science isn't there yet.

As was noted, evidence is stronger among those who work with the chemicals, including farmers and lawn pesticide applicators. Two reasons: one, they have higher exposure levels; two, they've been easier to research. So there's more information about them then there is about people in the general population.

So what do we know? Based on the most credible research, science has linked exposure to:

childhood brain cancer; childhood and adult leukaemia; 14 out of 16 studies showed a positive association, of which 13 or more than 80% are statistically significant;

Wilms' tumour, which is a type of kidney cancer usually found in children under the age of five.

I'm going through some very detailed information. The report in your folder has the more detailed information of what I'm saying verbally, in case you're wanting to see more of this.

Neuroblastoma, a type of cancer that develops in immature nerve cells and affects mostly infants and children;

Ewing's sarcoma of bone, one of a group of tumours that all develop from the same type of stem cell;

breast and kidney and lung - there's some associations. For breast cancer, there's increased cases of mammography findings that are markers for development of breast cancer, but there have not been any statistically significant differences between those exposed and those not exposed in terms of actual malignancies. So they'll find something there. It may not be malignant but they're finding more indicators for women with breast cancer;

kidney cancer - six studies showed positive and statistically significant association, mostly among children whose parents were occupationally exposed;

in lung cancer, there may be a relationship but the results are not statistically significant and further research is needed;

non-Hodgkin's lymphoma - 23 out of 27 studies found a positive association, 11 out of 27 of the studies were statistically significant.

While the research is starting to tell us something, there are limitations. The evidence is suggestive, it's growing. We're not 100% sure. So what are those limitations? As I was listening to Dr. Houghton's presentation, she noted many of the ones I'm going to mention, but I think we look at it in a slightly different way.

Study sample sizes are low. We don't have large studies, as of yet, to demonstrate the impact. But what you need to remember is, because we have that information, it doesn't mean that there isn't an impact, it means we don't know. The length of follow-up is short. You often need 15 to 25 years to see an impact. I would propose that neither the side trying to demonstrate whether there is an impact, or the side that's trying to demonstrate there isn't, has done this kind of study to really know what we will see in 15 to 25 years.

Most studies assessed occupational, which I mentioned before. Many studies are animal based. As you've heard from the presentation, toxicology studies focus on animals. The reproductive was all on animal based. But we know that the exact experience for humans may not be the same. Pharmaceutical studies were noted here. But if you think of how we do pharmaceutical studies, it starts in animals. You go to clinical one trials on people, you go to clinical two, you take it through people to

know the impact.

Multiple exposures aren't always accounted for. What if we are exposed to one, two, three, four and five chemicals? What does that do to us, as opposed to just the one they're studying? Recall based studies are where people cannot recall, and that's a problem on our side of the issue. So that means we don't know for sure what they're being exposed to. They don't know. So there could be more there and there could be less. We do have to rely on epidemiological studies because of ethical concerns. We can't take a group of people and expose them to chemicals and then say: Okay, let's watch and see what happens. It's not ethically valid.

But where does the burden of proof rest? Is it with me to prove that something does definitively cause cancer or is it with another group, who promote the products, to prove that it definitively does not? I would propose that we have not proved that it definitively does not. Dr. Houghton said that there are studies on both sides of the issue. You will find studies that say it does and you'll find studies that say it doesn't. Which place do you want to land on the caution of?

I would suggest, and what the Canadian Cancer Society believes, that if there is a potential to cause harm, then we need to act. We need to act to protect ourselves. This is what we would term the precautionary principle. It states that: whenever there is a reliable scientific evidence that a substance may have an adverse impact on human health, but there is still scientific uncertainty on the precise nature, decision making, which you are all rested with, must be based on precaution in order to prevent damage to human health and the environment.

You put that into context. So we talk about, and it was mentioned, the AIRC report on diet and cancer, and said: We need to know, you know, that - so when you look at that impact, yes, you want to have good quality fruits and vegetables for people. Cosmetic pesticides don't provide good quality fruits and vegetables for people. So when you weigh the risks, which are potential, to the benefits, which are minimal at best for cosmetic use of pesticides, precautionary principle would state that you eliminate that product to reduce any potential for harm.

But why a cosmetic pesticide ban? As I just stated, there's no community benefit to the products that outweigh the potential risks. We're not talking about a food supply. We're not talking about people being able to afford good foods to reduce the risk of cancer. We're talking about products that will cosmetically make lawns and gardens appear well.

Bans will reduce exposure. A study was actually done out of Quebec which looked at the body burden of toxins in children. Ninety-eight per cent of those children had toxins related to food, air, and water. But when they looked at the children that had had toxins related to lawn pesticides and herbicides, the children who lived in communities with no bans did not have them present. Sorry, the children that lived in communities with a ban did not have them present. The children who lived in communities where there wasn't a ban had them present. That's in your report that I noted there.

So when you talk about has there been any studies, we can't tell you whether that's going to have an impact 15 to 25 years from now. But on the actual chemicals in those children's bodies, it was different.

The priority should be to protect the health of all Islanders and our environment. Most Islanders do not use these products on their lawns and gardens. Most Islanders are concerned about the health impacts, and most Islanders want a ban. How do I know that?

Chair: Five minutes left.

Dawn Binns: Okay, I'm going quick. How do I know that? We asked them. We commissioned a study with Corporate Research Associates just recently, in November 2007, and here's what we found.

When asked if they used the product, 82% of Islanders do not use cosmetic pesticides or have not in the last 12 months. Even those who did, they would limit it to one, two, three, four to six times. They are concerned about the health risk. When asked if they feel it poses a potential risk, 82% said yes, they feel it poses a risk to their health. All of this is in your report. When we asked them if they would support a ban in Prince Edward Island, 75% of Islanders completely or mostly supported a ban. That has grown 14 percentage points since we surveyed in 2006 to now. Islanders want to see this happen.

So what includes an effective ban? Research has demonstrated an effective ban includes a few essential elements: restrictions and not just education; strict exceptional use clauses; public awareness; and restrictions on the sale and display of banned products.

A best practices study - which I do have the full report of but I was cognizant of trees and didn't want to give everybody a copy of this, which I will leave with Marian - but a best practices review identified the communities that only use education programs have limited reduction. So if you go about this by just educating the public, they only saw a 10 to 24% reduction in usage. But communities with education and by-law restrictions had the most reduction, ranging from 50 to 90%.

Permits required for exceptional uses by citizens are important. In some jurisdictions they permitted permits to be requested by a lawn care company, or anyone really, and what they saw was some homeowners didn't even know they were being asked for a permit. What you need to do is have that the citizens actually have to apply for their own permit, that there is a trained professional who will go and see: Is this necessary, is there an actual infestation that needs to be dealt with? Only then you can provide education, provide alternatives, and if it does really meet the criteria that are stringently set, then they may be able to use a product for a very limited and restrictive purpose.

Sales restrictions do ensure full compliance. Most of the items that you'll see will talk about the fact. There was a show on CBC, *Marketplace*, that even in Halifax where they've had a ban in place, people can still go to Wal-Mart and buy the products. Quebec has brought in a phased approach to restricting the purchase of products for cosmetic use and this is what we would support.

I really appreciated, actually, Dr. Coffin's presentation. Most of the people that he spoke to didn't know what was in his products. Actually the Canadian Cancer Society - and I'd be interested to hear the committee, maybe your next hearings could be on this - is looking at community right to know and labelling legislation. Where, if a product contains a carcinogenic item, then consumers need to know. Not by listing a phrase three, ten syllables long that I don't know what it is. A simple labelling system, because people deserve to know if what they're using has anything of a carcinogenic nature in it.

Healthy alternatives do exist to maintaining your lawns and gardens. The majority of consumers would consider not using pesticides if they were educated on the alternatives. When you look at the landscaping sector, it is not hurt by this. Statistics Canada reported that the Toronto lawn care and landscaping sector had grown each year since 2001 by 30% after their ban.

That growth was consistent with other areas that did not have bans.

So we're not looking to eliminate landscaping, we're not looking to eliminate nice lawns. We're looking to eliminate a product that has a potential to cause harm against people. The time to act is now. Do we know for sure? No. But we don't know for sure whether it does or whether it doesn't. But the evidence is growing, it is suggestive, and there are links that are developing. It's the right thing to do for our health and for the environment.

We must look forward and plan for the future impacts of our actions today. If in 1950 the American Surgeon General did not state: The samples are only small on the evidence that smoking causes cancer, we shouldn't do anything yet, where would we be?

The majority of Islanders want it.

Chair: Thank you very much.

Dawn Binns: Thank you.

Chair: We are overtime. One quick one.

Ms. Biggar: Just in regard to your survey, how many were in it? Based on the results, 82% of those weren't using it. So of those 12%, do you know where they're based out of? Like, it just seems contradictory, if we're looking at a ban and 82% of people aren't even using them.

Dawn Binns: I think there's two elements. So in your report it does indicate the number of people surveyed and a confidence interval, and all of that, and we can get that to you.

Actually, I anticipated that question a little bit.

Ms. Biggar: It just seems contradictory.

Dawn Binns: It does, and I think what you need to look at is, yes, so a majority of people don't use the product, but those people who don't use the product are exposed to it by the people who do. Similar to a smoking ban. Majority of people do not smoke, but of the people who are smoking, when you look at smoke in public places, they're exposing it to the people who do or who don't want it.

When we looked at - they did do a regional breakdown. Kings, Queens and Prince is about the most Corporate Research Associates could do. Kings County, 99% of people did not use the product. In Queens County, 78% did not use. So you can see where the majority of the users are probably in urban areas. In Prince County, 81% of the people did not use.

Chair: Good. Hate to cut this off, we'd likely go on forever. Anyway, I want to really thank you for the presentation.

Dawn Binns: Thank you.

Chair: Super. For the information.

Our next presenter is Dr. Alice Crook. Again, we have allotted 15 minutes. I'd ask you to introduce yourself for the sake of Hansard, and then you can continue right on into your presentation. I'll give you a five-minute heads up when we're running short of time. You have another presentation overhead?

Unidentified Speaker: Yes.

Dr. Alice Crook: Good evening. I appreciate the opportunity to speak to the standing committee on the issue of a potential ban on the cosmetic use of pesticides on Prince Edward Island.

I will concentrate on the cosmetic use of pesticides, unlike Dr. Coffin, who talked a lot about agricultural - I think mostly about

agricultural use of pesticides. This is an area that I've been interested in for many years, and I was a member of the city of Charlottetown's ad hoc committee on cosmetic pesticides.

Over a six-month period the other four committee members and I researched extensively on federal and provincial legislation, the health and environmental effects of pesticides, the pesticides in golf industry perspectives, and the experience of other municipalities. We produced a very thorough document, which I trust you're aware of, and the statements that I make are referenced in here. So I can find the references for any statements I make.

I'm not here to present the report tonight, which is a City of Charlottetown document, but I do speak from the experience that I gained from being on this committee.

I'm going to use my time this evening to highlight two areas that commonly cause confusion when we talk about cosmetic use of pesticides, and I think they're very relevant considering some of the things that were said earlier.

The first is to look at the pesticide regulation process. Many people assume that since pesticides are regulated they must be safe, and people say: Why should we second guess the scientists? But, in fact, there are several concerns about the way in which PMRA assesses risks. We talk a bit about that. Then the second question is about health perspectives and why does it seem that there is conflicting studies, conflicting results. So why the lack of clarity?

So onto to slide three now. As you know, the *Pest Control Products Act* is administered at the federal level by Health Canada's pest management regulatory agency, and PMRA is responsible for pesticide registration. So in order for a pest control product to be registered, PMRA must decide that it poses no unacceptable risk to human health or the environment when used according to label instructions. In its decision making, PMRA relies primarily upon the process of risk assessment. PMRA is also responsible for human health and environmental safety assessment and also value assessments.

I've said what PMRA is responsible for, and people have mentioned that it's responsible for the efficacy assessments, which is whether the product is effective. But these value assessments don't look at whether the end result is of value or not. In other words, PMRA does not consider or evaluate whether there is value in maintaining a weed-free lawn. As has already been mentioned, PMRA does not do its own studies but assesses studies that are done by others, and most of the ones that are submitted are submitted by the registrant or the manufacturer.

So why are there concerns about this risk assessment process? The vast majority of studies submitted to PMRA are done in a laboratory setting, that is, they're toxicological studies, and as Dr. Houghton said, she's a toxicologist, and this is because of the toxic nature of pesticides. We can't do them in people. It wouldn't be ethical to do that. So we use animal models and there is the concern that animal models may not adequately access human risk.

Also the exposure conditions in these studies are highly controlled and specific, and this is very different from what takes place in real life. The animals are almost always exposed to only one pesticide at a time whereas, of course, in real life there's multiple complex exposures to chemicals. Even different pesticides are often combined into a single product. Par III, for example, which is a popular weed product used on lawns in PEI, combines three different herbicides - mecoprop, dicamba and 2,4-D. The question was asked earlier, if 2,4-D has

been banned anywhere. I know it's been banned in Sweden, for one thing. I'm not sure about other places.

The other criticism is that PMRA's process does not adequately access cumulative risk, and that's the risk that can result from exposure to more than one pesticide at a time, or the multiple exposures that take place in an individual's lifetime, over the course of the many exposures that they might experience. A 2002 PMRA science policy notice stated that: it is appropriate to look at cumulative risk, and that as appropriate methods are developed that they will be implemented as science allows.

However, the most recent reevaluation of 2,4-D did not include assessment of cumulative risk nor did the most recent reevaluation note for dicamba.

It was also mentioned that PMRA is directed to reevaluate older pesticides using updated standards for health and environmental protection - one of the previous speakers mentioned that - and that is an excellent thing to do. However, there's a very severe backlog in reviewing these studies. The eight most commonly used insecticides and herbicides were prioritized for review first, and PMRA stated that the review would be finished by 2001 but, in fact, the review process of those eight products is not completed yet.

In 2002, during the revaluation of mecoprop, PMRA decided that there were data gaps. Rather than generate the required data, the manufacturers decided to discontinue manufacturing mecoprop. However, PMRA is allowing it to be used until the end of 2009 because there's still stores of it.

So I'm going to move on to talk about the difference in the studies on health effects. I've talked about limitations of toxicological studies, that there are - and I should have mentioned this at the beginning because we skipped right over it, as far as my sort of credentials. I have a Bachelor of Science in Biology and I am a veterinarian so I do have some experience of evaluating scientific studies.

I talked about the limitations of toxicological studies. They are done in highly controlled circumstances using animal models and usually exposed to one pesticide at a time. In contrast, we have epidemiological studies which look at the occurrence and causes of health effects in human populations in real life situations. These studies look at a group of people exposed to pesticides, at work or at home, to determine if they have higher rates of a disease such as cancer , for example, over the long term. But the problem is that it's very difficult to prove that the pesticide is what caused the negative health concerns. So instead they look at associations between a health effect and an exposure. When a number of studies start to draw the same associations, that is increasing evidence that there is actually - that the pesticide is causing the health effect. Dawn Binns talked about some of the bodies of studies.

As mentioned, some epidemiological studies give conflicting results. But there are many studies that have correlated exposure with a number of adverse health outcomes, including cancer, Parkinson's disease and birth defects. The International Agency for Research on Cancer has classified some landscape pesticides as possible or probable human carcinogens, and of particular concern is the lack of certainty regarding the health effects of pesticides on children.

There is a substantial amount of literature that raises concerns regarding the health effects of pesticides on children. There is some uncertainty about this, but there appears to be potential for subtle, long-term effects when children are exposed to pesticides at sensitive periods of

development. So, for example, while they are still in the womb. It's possible that exposures to toxins, in utero, could result in health consequences that are not apparent until adulthood, and obviously these take long-term studies to identify this. In particular, the toxicity of some pesticides to the developing nervous system is not well understood.

Children are also more vulnerable than adults to carcinogens and other toxins because their systems are in a state of rapid growth with cell division and maturing organ systems. Their immature metabolic and physiological systems are less able to protect them from toxic exposures. It appears that the most vulnerable time for exposure seems to be in utero and during the early years of life.

When asked about reproductive studies, Dr. Houghton mentioned the toxicological studies they've done on animals. You're talking about two generations of animals. To me, you can't equate two generation studies in animals under very controlled conditions, you can't say that that mimics what children experience over their lifetime. To me, there's not very much of a connection. So it would take long-term epidemiological studies, following children over a long period of time, to really pinpoint these effects.

Chair: You've got about five minutes left.

Dr. Alice Crook: Okay. I'm coming to the end.

So there are some studies that have shown associations between home pesticide use and childhood brain cancer and leukaemia. Children's exposure is greater due to their habits, such as, you know, playing on lawns, playing on the floor in the house when pesticide residues have been brought in on feet, and stuff like that.

In 2003 PMRA convened a special panel to assess a document for the continued registration of 2,4-D and this panel, which was a PMRA panel, indicated that childhood cancer issues should receive greater attention. But the agency itself later decided that it was not necessary to do that because they felt that enough was known about 2,4-D.

There are other questions raised about other vulnerable sub-populations. There's evidence of a reduced capacity by the aging nervous system to compensate for impairments caused by exposure to substances that are toxic. There are also varying degrees of sensitivity to the effects of pesticides among individuals, and I think you've already heard presentations on this from people who have been affected. And there are definitely studies that show that comparable exposures to pesticides can cause significantly different health effects, depending on an individual's genetic makeup.

Some health effects are not well understood. For example, in the area of endocrine disruption - and I don't think I'm going to talk about that because there really isn't time - but it's an area where there just aren't the studies yet to really know whether there's a problem or not, but there's suspicion that there is.

I'm a veterinarian's wife. I looked at pet studies, of course, and there a few studies that have shown negative health effects associated with pesticide exposure.

So, a few resources to mention. Some of this information on health effects is summarized in our report, and as I said, is referenced. The most thorough and well referenced document that I have seen on public health effects is in the report from the Toronto public health that was released in 2002 by Dr. Basrur, who is a Toronto medical officer of health. She later became medical officer

of health for the Province of Ontario. We have a copy of that to leave with you. It's also available on line.

Dr. Houghton mentioned that all the data must be considered together:- toxicological studies, epidemiological studies and (Indistinct) studies. This, as I said, is the most thorough review I've seen. It's called: A Review of Human Exposure in Health Effects Research. It's an exhaustive review of the studies and it comes to very different conclusions than Dr. Houghton was mentioning, and I'll just read maybe one sentence:

Limited epidemiological - I'm going to read two sentences - research has also assessed the associations between early exposures to pesticide and long-term effects in children. The evidence is persuasive that the greater susceptibility of pregnant women and fetuses, enfants, children and the elderly, justifies prudent avoidance and precautionary measures to limit unnecessary exposures to pesticides for these vulnerable sub-populations.

So I recommend that to your attention.

I'm going to finish also, as Dawn Binns did, by mentioning the precautionary principle that basically says where there is scientific uncertainty, then we should err on the side of caution. There are a few studies that have assessed the impact of long-term, complex exposures to the variety of different chemicals that are commonly present in our environment and in human tissues, and there's mounting evidence that the health risks of pesticides outweigh - far outweigh - the potential benefits of having weed-free lawns.

That's it. That was fast. I hope that was -

Chair: One quick one, Jim. We're just up to time.

Mr. Bagnall: I got a couple here. You said 2,4-D was banned in Sweden in your comments here tonight. We heard earlier from another doctor and a researcher that it wasn't banned in Sweden. We're getting two reports here from two different doctors tonight, one saying it was banned and one isn't. So I'm just putting that out to you.

Dr. Alice Crook: Okay. There was a reference for that, and I had a reference for it, so we could probably get you the reference.

Mr. Bagnall: Okay. Because either somebody - I heard two things here tonight on the exact same thing.

You had mentioned that PMRA, when they were doing - that the companies were doing all the testing for them and they were just evaluating them.

Dr. Alice Crook: Yes.

Mr. Bagnall: My understanding is they do testing themselves, plus they send out to independent labs to do testing, also.

Dr. Alice Crook: They may well send out to independent labs to some extent, but I think you would - if you go to their website or look into it, most of the studies they look at are submitted by the manufacturers, the vast majority of them. So they do. But they don't actually do the testing themselves, although they may send some of the studies out to other organizations.

Mr. Bagnall: I noticed, and I guess - and you've gone to associations rather than scientific information to back it up here - you're going with associations of groups.

Dr. Alice Crook: Okay. Association is a scientific term. If you look at - epidemiology is basically the study of associations. So it's looking at studies where you can't show cause and effect because you

haven't done, you know, studies in a controlled group where you're treating one group a certain way and you're treating another group another way, because you can't do those kinds of studies in populations.

Mr. Bagnall: I guess my question, to get there to it, are scientists doing that association -

Dr. Alice Crook: Yes.

Mr. Bagnall: - or are people sitting down and reading all the documentation and putting it together based on what they've read on all these different reports and then doing associations?

Dr. Alice Crook: No. The epidemiological studies are scientific studies. They're just a different type of scientific study, and they're done by scientists, by epidemiologists.

Mr. Bagnall: Okay.

Dr. Alice Crook: I mean, this is a combination. There are toxicological studies mentioned and epidemiological studies. If we look at some of the titles - I mean, there isn't time really to look into it in that detail - but they are done by - Dr. Van Til, who was mentioned, is an epidemiologist.

Mr. Bagnall: That report there that you have in front of you that was done for the City of Toronto -

Dr. Alice Crook: Yes.

Mr. Bagnall: - is that what you're telling me that is?

Dr. Alice Crook: Yes.

Mr. Bagnall: Was that done by a group that were looking to ban pesticides?

Dr. Alice Crook: No.

Mr. Bagnall: Or was that done by a group that was looking to defend the information?

Dr. Alice Crook: Neither one.

Mr. Bagnall: Who was it done for?

Dr. Alice Crook: It's a peer reviewed, scientific - it's done by the medical officer of health.

Mr. Bagnall: But why did she do it? Because of the pressure put on to ban pesticides or why?

Dr. Alice Crook: Hard for me to speak to that. Obviously I don't know that, but I expect -

Mr. Bagnall: I think it makes a difference, though, when we're getting information, whether it's been a report coming from a pro-ban or non-pro-ban. I think that's very important.

Dr. Alice Crook: It's very interesting, because I've heard a lot of people criticize the College of Physicians and Surgeons report, as did the earlier speakers, but I've not heard anybody criticize this one. Because I think it's a very scientific, impartial report, and it is peer reviewed, which has a lot of weight in the scientific world. It means it was reviewed by - it mentions the people - department of public health sciences, University of Toronto, somebody else who's with the reproductive development toxicology program, McMaster University -

Chair: Are you leaving that behind for us?

Dr. Alice Crook: Yes.

Chair: Okay.

Dr. Alice Crook: Departments of epidemiology at McGill University, Canadian network of toxicology centres,

University of Guelph. So it's -

Mr. Bagnall: I don't mean to appear negative, but I mean we have to look at both sides of the issue.

Dr. Alice Crook: Yes, I understand that. I think it's very important to look at the source of the information.

Mr. Bagnall: Exactly.

Dr. Alice Crook: I (Indistinct).

Mr. Bagnall: And why it was sourced. That's the concern that I have. A lot of the reports we get are because they've been asked to ban pesticides. So a report comes in based on what they're looking for, a lot of times, or vice versa. So you wonder if it's the pro side or the negative side that are doing these reports.

Dr. Alice Crook: This was the case of the medical officer of health being asked to review the issue and there's no indication that they were expected to prejudge the response.

Chair: Anyway, I'd like to really thank Dr. Crook for that presentation. We will have the joy of balancing both sides of this, all scientific input, when we're wrapping this up.

Our last presenter for the evening -it's almost like getting to a Canadian sport here, we're into overtime - anyway, Lisa Gallant. Do you have an overhead as well?

Lisa Gallant: I'm going to operate off of the same machine so it should be all right.

Chair: Once again, I'll go through the preamble. It's 15 minutes and I'll give you a five-minute heads-up. Okay?

I'll ask you to introduce yourself.

Lisa Gallant: Sure. My name is Lisa Gallant. I'm a pharmacist, and I'm a mom, and I chaired the City of Charlottetown cosmetic pesticide ad hoc committee which is how I became to be interested in this. I do have some handouts.

Because of the time allotment I had a hard time deciding how to go about this. So what I wanted to do was outline some of the arguments you might be hearing against legislation and tell you why I don't think they're valid. Through my presentation I hope to provide some insight into what the implications of a province-wide ban on cosmetic pesticides might be. I wanted to say all of the statistics and facts that I present this evening are referenced in the documents that I left for you.

One of the arguments that you may have heard against legislation is that alternatives to conventional pesticides are not as effective. So let's look around us to find the answer to that. Again, I'm not talking about agriculture, I'm talking about cosmetic use on people's property.

Let's look at Charlottetown. In April 2003 Charlottetown adopted a pesticide use policy. Parks and recreational staff were supported in taking courses on how to look after plants properly so that, hopefully, pest problems could be reduced. The aim here was to reduce the cosmetic use of pesticides on municipal property. What happened with that is that a once a year fungicide is applied to the city's lawn bowling greens. Other than that, no other pesticide or growth retardants have been used by city staff in any department in over three years. Personally, I think Charlottetown looks pretty good.

When you talk to staff in municipalities that have implemented bans on cosmetic pesticides, they're not saying that things look terrible. They're not saying there's been damage. They're basically saying that

the look of most properties has not changed. There are ways that you can maintain properties and have healthy lawns without pesticides, through de-thatching, aerating, top dressing, that sort of thing.

Another argument you might hear is that legislation doesn't work. Pesticides will still be sold in neighbouring provinces. That people will simply drive to Moncton and buy their pesticides and apply them after dark. You might be encouraged to adopt an education only program. So, again, let's look at what has happened in other jurisdictions.

Calgary, Ottawa and London are three municipalities that adopted education only programs. They decided to educate residents on sustainable landscape methods and some of the health and environmental concerns with pesticides, with the goal of voluntary pesticide reduction. After, I think usually it was about two years - it's in the charts that I gave you which is from the City of Charlottetown report - most of the cities, after approximately two years, looked at the change in pesticide use and there was no change.

Halifax and Toronto, on the other hand, introduced legislation to prohibit the cosmetic use of pesticides in the maintenance of lawn, turf, flowers, and ornamental plants, trees and shrubs. They did allow for exceptions under pre-established conditions and this is done through a permit system. So no one's saying that you can't have pesticides ever. Pesticides are still allowed to control indoor pests, and again, I think that's a personal choice. I go back to another presentation we heard this evening. If someone wants to apply pesticide in their home, that does not affect me. When I was pregnant I walked every day and I'm sure those 20% of people that are using pesticides in Charlottetown all live on my street because I had to walk by everyone's lawn every day. So they were making the choice for me. But I digress.

Pesticides also, in these municipal bylaws, can be used to control noxious weeds, such as poison ivy and pests which are harmful to human or animal health. So, again, if West Nile comes this does not affect that whatsoever. We can still do whatever we think is best for mosquitoes. As well, golf courses are usually exempt in municipal bylaws.

So let's look at what happened in these municipalities. Again, I'm going to refer to the charts that I left you. In the past five years permit applications to use pesticides in the Halifax Regional Municipality have decreased by 60%. In Toronto, household use of cosmetic pesticides decreased by 35% over a two-year period. That was during the phase-in of their bylaw. The bylaw still didn't apply to homeowners. So even before homeowners began to be fined they saw a 35% reduction.

I'm aware of two studies that compare the two approaches - legislation versus education only - and I've provided them for the committee. One was done by the University of Toronto and Toronto Public Health. The other was done by the Canadian Centre for Pollution Prevention. Interestingly, both studies came to the same conclusion, that education alone does little to change behaviour and that bylaws with education are more effective. You have to make people change.

Quebec is interesting. They are the only province in Canada that has pesticide legislation province-wide. In 2003 they adopted their pesticide management code. They did have a phase-in. So in 2003 the code only applied to government-owned properties and, I think, child care facilities. In 2004 all weed and feed products were prohibited, and in 2006 the code applied to all property everywhere, all lawns. They also gave municipalities the power to

implement bylaws if they wanted to further restrict pesticides within their boundaries.

The impact of this - I have some data from Statistics Canada. From 1994 to 2005 use of lawn and garden pesticides in Quebec decreased by 50%. They went from 30% to 15. I think it's important too, 2005 was still during the phase-in period. So homeowners still would not have been fined had they been using lawn and garden pesticides during that time. So there might be further change since then. Over this time the national average changed only marginally, from 31 to 29%, and PEI's usage actually increased slightly. So obviously something made a change in Quebec.

If you're looking at the business impact of pesticide legislation - I think Dawn Binns made reference to this as well - Toronto and Halifax both have information that show lawn care and landscape companies did not lose business after those municipalities implemented bans. The companies grew in number and size, and in Toronto a consistent number of residents continued to hire professionals. So, at least in Toronto, people didn't decide to stop hiring their lawn care company just so they could go and apply the banned pesticides themselves.

Another thing you might hear is that PEI already has some of the most stringent regulations in Canada. The province has adopted a classification system for domestic pesticides and that would include cosmetic pesticides. Higher risk pesticides are control-purchase. They're not available for self-selection. They have to be kept in a locked cabinet and they can only be sold by an individual certified by the province. You can still get lower risk pesticides like vinegar and soap without - you can just pick it up off the shelf yourself.

The practical implications of this is that only three stores in Charlottetown, for instance, are selling the control-purchase pesticides. So I believe fewer retailers are carrying them. But it's important to note that the certified individual selling the product is under no obligation to provide any information to the buyer. In fact, when you go to these retail outlets you will find posters and information sheets that will tell you if you have a weed, use a pesticide. If you have cinch bug, use a pesticide. There's nothing at that store that's going to direct a person to more sustainable landscape methods.

So what I would like to see is the province of PEI introduce legislation to phase out the cosmetic use of pesticides on all property - municipal, residential and commercial - except for golf courses. I think it's reasonable, however, to ask golf courses to keep documentation as to why they had to make pesticide application and what measures were taken to prevent pest problems. The Province of Quebec requires golf courses to submit a pesticide reduction strategy to them once every three years. I think that's reasonable.

I'm going to skip this because people already said that.

With a permit system, I do feel that you have to have a permit system for insect infestations, but I would like to see permits restricted to maybe twice per person per property. Otherwise, some people will use pesticide again and again every year without changing their landscape practices.

Chair: We're at a five-minute limit here. We have some questions. Okay?

Lisa Gallant: Five more minutes?

Chair: Five minutes.

Lisa Gallant: Okay. Cost - this is based on municipalities. Education plus bylaws usually cost between 50 cents to a dollar per person per year. I want to mention, Halifax

did it for 60 cents per person, and I think that's because they were very astute at partnering with other organizations that had the experience in this area. I think you've heard from some groups that would have experience in this area. If you can partner with some non-government organizations you could probably save some money.

I also wanted to mention one thing - because I'm a pharmacist I have to get off on my pet peeve here - you did hear that pharmaceuticals undergo a lot of the same study that pesticides do, except let's be aware that pharmaceuticals are tested in hundreds of actual people before they're approved for use, and that people make the choice for themselves whether the risk outweighs the benefit.

It's interesting. Over the last three years I can think of, just right off the top of my head, probably four drugs that have been taken off the market after only recently being approved because studies are not the same as real life. They're not.

Chair: Okay, Rob, Jim, and then Cynthia.

Mr. Mitchell: Just a quick question. I believe you said you were on the ad hoc committee for the city and I know you've studied some other cities that were using. I'd like you to explain to me the logic in exempting golf courses. How does that come into play when it's probably the biggest area in a -

Lisa Gallant: Well, you'd be surprised actually. In Calgary, for example, homeowners use four times or twice as much pesticide per hectare as - residents use twice as much per hectare as golf courses.

Mr. Mitchell: So are they limited to an amount, though?

Lisa Gallant: So residents are actually higher users.

Mr. Mitchell: Like, do you say: Yes, you're a golf course but you can only use this amount? How do you -

Lisa Gallant: To me, frankly, it's a political decision. I just think: Would it be harder to push through legislation if you weren't going to exempt golf courses? Sure, I would love to see golf courses not use pesticides.

Mr. Mitchell: So it's not based on anything else. Okay. Thanks.

Chair: Jim.

Mr. Bagnall: You just made a comment a while ago that when these studies were being done, your comment that anybody was volunteer, that you saw no change.

Lisa Gallant: Sorry, I don't understand the question.

Mr. Bagnall: Like, you were talking about pesticides, where they were banning it in communities -

Lisa Gallant: Right.

Mr. Bagnall: - and some areas did it on a voluntary basis.

Lisa Gallant: Right.

Mr. Bagnall: And in your figures you said that there was no change.

Lisa Gallant: That is correct.

Mr. Bagnall: I just wanted to point it out. Then in the Cancer Society, they're telling us that (Indistinct) the exact same thing, that they're finding anywhere from 10 to 24%, you know. So what we keep hearing -

Lisa Gallant: Those are just the ones that I looked at, personally.

Mr. Bagnall: But when we keep hearing all

this information, you get one person coming in and telling us one thing, and you get another group coming in and telling us - you know, it makes it kind of hard.

Lisa Gallant: But can you see that's still lower, that 10 to 24%.

Mr. Bagnall: So you wonder who has the right scientific information and who doesn't, you know.

Lisa Gallant: Right.

Mr. Bagnall: Those are concerns that I have when we're listening to all this stuff, whether it's a pro-group or how these numbers are coming. Because we get these numbers thrown at us. I think we had another group had different figures again, earlier, in the first day of our presentations. So, you know, it makes it hard for a committee when we're trying to deal with it, and we have people coming in throwing numbers and they're all different.

Lisa Gallant: Right. That 10 to 24% came out of the best practices review from the Canadian Centre for Pollution Prevention, I believe, and I left it with your committee. That is based on a wide range of communities across North America. When I said no change, I was specifically talking about Calgary, Ottawa and London had very little change or no change. Those are the ones I looked at. Those other communities had little change, compared to communities with legislation that had greater.

Chair: Okay. Cynthia.

Lisa Gallant: Like, twice as much.

Ms. Dunsford: On the golf course again, the golf courses. So when the ad hoc committee for the City of Charlottetown was looking at this, was that the conclusion with the committee, as well, that it was basically too difficult to push through if we were to include it? Or was there talk of buffers, you know, or phase-in like other provinces?

Lisa Gallant: That was different because then we would just be excluding one golf course and letting everyone else on the Island practice the same way that they always did. So we felt that that was really unfair.

Ms. Dunsford: Within the municipality of the City of Charlottetown, right.

Lisa Gallant: Right.

Ms. Dunsford: Okay.

Chair: Good. Thank you very much for the presentation. We really appreciate it.

To all the presenters tonight, lots of information, and as Jim says, there's different sides to it. I guess we'll have to decipher in the end.

I want to make note that the next meeting of this committee dealing with cosmetic pesticides is set for January 15. I'd invite each and every one of you to return and listen, if you wish.

That's the end of our agenda for this evening, and I would entertain a motion to adjourn.

Mr. Bagnall: So moved.

Chair: Shall it carry?

Ms. Dunsford: Carried.

Chair: Meeting adjourned.

The Committee adjourned