2011 Legislative Session: Fourth Session, 39th Parliament
SPECIAL COMMITTEE ON COSMETIC PESTICIDES
MINUTES AND HANSARD

MINUTES

SPECIAL COMMITTEE ON COSMETIC PESTICIDES

Thursday, October 6, 2011
8 a.m.
Birch Committee Room
Parliament Buildings, Victoria, B.C.

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

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

1. There not yet being a Chair elected to serve the Committee, the Committee Clerk called the meeting to order at 8:06 a.m.

2. Resolved, that Bill Bennett, MLA be elected to serve as Chair of the Special Committee on Cosmetic Pesticides. (Ben Stewart, MLA)

3. Resolved, that Rob Fleming, MLA be elected to serve as Deputy Chair of the Special Committee on Cosmetic Pesticides. (Scott Fraser, MLA)

4. The following witness appeared before the Committee and answered questions regarding federal legislation relating to pesticide regulation:

Mr. Lindsay Hanson, Health Canada

5. The Committee recessed from 9:42 a.m. to 9:46 a.m.

6. Resolved, that the Committee meet in-camera to discuss their Business Plan. (John Slater, MLA)

7. Resolved, that the Committee accept its Business Plan as received. (Scott Fraser, MLA)

8. The Committee adjourned to the call of the Chair at 10:02 a.m.

Bill Bennett, MLA

REPORT OF PROCEEDINGS
(Hansard)

SPECIAL COMMITTEE ON COSMETIC PESTICIDES

THURSDAY, OCTOBER 6, 2011

Issue No. 3

ISSN: 1927-0410

CONTENTS

Chair:	* Bill Bennett (Kootenay East L)
Deputy Chair:	* Rob Fleming (Victoria–Swan Lake NDP)
Members:	Barry Penner (Chilliwack-Hope L)
	* John Slater (Boundary-Similkameen L)
	* Ben Stewart (Westside-Kelowna L)

	* John Yap (Richmond-Steveston L) * Scott Fraser (Alberni–Pacific Rim NDP) Michael Sather (Maple Ridge–Pitt Meadows NDP) ** denotes member present*
Clerk:	Susan Sourial
Committee Staff:	Josie Schofield (Manager, Committee Research Services) Morgan Lay (Committee Researcher)

Witness:	Lindsay Hanson (Pest Management Regulatory Agency, Health Canada)

[Page 23]

THURSDAY, OCTOBER 6, 2011

The committee met at 8:06 a.m.

Election of Chair and Deputy Chair

S. Sourial (Committee Clerk): Good morning, Members. As this is the first meeting of the fourth session of the Special Committee on Cosmetic Pesticides, our first order of business is to elect a Chair. Are there any nominations?

B. Stewart: I'd like to make the nomination that Bill Bennett be considered for Chair.

S. Sourial (Committee Clerk): Mr. Stewart has nominated Mr. Bennett. Any further nominations? Any further nominations? Any further nominations? Seeing none, I'll put the question.

Motion approved.

[B. Bennett in the chair.]

B. Bennett (Chair): Good morning, everyone. Thanks for coming to the meeting. I think our next order of business is to elect a Deputy Chair.

S. Fraser: I would like to nominate Rob Fleming.

B. Bennett (Chair): Thanks. That's from MLA Scott Fraser. Any other nominations for Deputy Chair?

Motion approved.

B. Bennett (Chair): Rob Fleming, MLA, will be our Deputy Chair. He gets a new sign.

R. Fleming (Deputy Chair): A new sign, yay.

B. Bennett (Chair): These are better than the Jeff Foxworthy signs, I guess.

Well, listen, ladies and gentlemen. This morning we have a gentleman, Lindsay Hanson, with us from Health Canada. He has come all the way from Ottawa to provide us with Health Canada's perspective on the use of pesticides. They're the body in the country that's charged with the responsibility for determining levels of risk — what's safe for the public to come into contact with and what isn't. Probably, I think, it'd be fair to say it's the pre-eminent authority on the use of pesticides in Canada. All of the provinces take direction from Health Canada.

Mr. Hanson, thank you very much for coming here. Welcome to British Columbia. Before you get started, I'll just get the members to introduce themselves and tell you where they're from, starting with Ben Stewart.

B. Stewart: I'm Ben Stewart. I represent the riding of Westside-Kelowna. Prior to being in politics I farmed for 35 years, and I own and operate an estate winery called Quails Gate Estate Winery. I participated with Health Canada in many research trials and have been a party to, I guess, the whole process of dealing with bringing new products into the stream of being used.

J. Slater: I'm John Slater, MLA for Boundary-Similkameen. Part of my riding is in the Okanagan. I'm a greenhouse grower and a nursery grower. I also sat on the B.C. Vegetable Marketing Commission for ten years, so I'm very familiar with pesticides and integrated pest management.

J. Yap: I'm John Yap. I represent the riding of Richmond-Steveston. Richmond is an area that historically has significant farming operations. My area, Steveston, includes some farming and also the historic fishing village of Steveston.

B. Bennett (Chair): Mr. Hanson, my riding is called Kootenay East. I live in a small city by the name of Cranbrook, which is right over in the southeast corner of the province.

R. Fleming (Deputy Chair): I'm Rob Fleming, and my constituency is Victoria–Swan Lake. It encompasses part of the city of Victoria and part of the district of Saanich, which has an agriculture component to it.

[0810]

It's mostly an urban and suburban riding, so both municipalities have various pesticide bylaws in place and have active pesticide management programs in their jurisdictions. That's some of my background, as a former city councillor, with pesticide use. Welcome here.

S. Fraser: Hi, Lindsay. I was born in Ottawa, actually, so welcome from there too. I'm the representative for Alberni–Pacific Rim. It used to be Alberni-Qualicum, but they changed the boundaries. It's sort of the central part of Vancouver Island, the west coast — Tofino, Ucluelet, Bamfield, all the Nuu-chah-nulth territories, Clayoquot Sound. I served as mayor there in '96-99, and we had a hand in creating the first UNESCO biosphere reserve there.

A very environmentally concerned area, it's still a hotbed of contention on many things, but it also encompasses the working city of Port Alberni and sort of the central part of Vancouver Island and then the east side of Vancouver Island — Deep Bay and Bowser, just north of Qualicum Beach. There is farming. There's agriculture in the Alberni Valley and also in the Errington-Coombs area on the east side of the Island.

I was involved in working with municipalities. The Association of Vancouver Island and Coastal Commun-

ities had a resolution raising concerns about introducing the spraying of herbicides along the E&N Railway corridor, because the watersheds haven't been thoroughly mapped. There are quite complex underground water systems.

B. Bennett (Chair): Susan, of course, is our Committee Clerk today, and Josie and Morgan are our research support. With this committee, because of the technical nature of our subject matter, our researchers are invaluable to us. We thank them for being here today.

As well, Mr. Hanson, your PowerPoint presentation is roughly a half hour, 40 minutes?

L. Hanson: I would say 20 to 30 minutes, typically. That depends if you want to ask some questions during the PowerPoint or at the end.

B. Bennett (Chair): What's your preference?

L. Hanson: I think typically I tend to go through it, and then there are usually questions afterwards, if that works okay for you.

B. Bennett (Chair): Rob, is that okay?

R. Fleming (Deputy Chair): Sure, that sounds good.

L. Hanson: But at any point feel free to stop me, if you wish.

B. Bennett (Chair): We'll try to do that. Yeah, if anybody really needs a clarification of something, I think you should speak up, but otherwise, we'll try to hold the questions until the end.

Presentations

L. Hanson: Thank you to the province. Thank you to the Chairman of the committee for the invitation.

I think it's only fair to give a little background on myself as well, after we've gone around the table. My name is Lindsay Hanson. I was actually born and raised in Saskatchewan and grew up on a grain farm in southern Saskatchewan. I ended up doing a degree in agriculture in Saskatoon and later on did some graduate work in toxicology. That's what took me to Health Canada in their assessment role, looking at the human health effects of pesticides.

I've been with Health Canada…. It will be 20 years next year. I've been with the agency since its formation in 1995. The first part of my career definitely was spent in the evaluation of actual pesticide submissions, looking at human health effects, carrying out the risk assessments. I've moved more into special project work, and I've had the opportunity to make presentations like this to various municipalities, various provinces across the country when we're invited to provide information on federal pesticide regulation.

Basically, I'm here today to give you an overview of how pesticides are approved for use in Canada and the science that forms the basis for these decisions. This is just a little bit of an outline of what I'll talk about today. That's the federal legislation for pesticide regulation, an overview of the scientific review process itself and some of the other initiatives we have to further reduce risk.

What is a pesticide? You have probably already been presented with this information. I know that you had met with provincial ministry people with regards to

pesticide regulation. But just to run over what the definition is, this appears in the Pest Control Products Act. A pesticide directly or indirectly controls, destroys, attracts or repels a pest or mitigates or prevents an injurious, noxious or troublesome effect. Some common examples: herbicides, insecticides and fungicides used in conventional and in organic agriculture.

Some of the things that you may not think about in terms of pesticides popping to mind are swimming pool chemicals, some of the rodenticides, flea and tick products for pets, the insect repellents that you buy for mosquitoes and biopesticides.

[0815]

Health Canada's main priority, of course, is to maintain and improve the health and safety of Canadians. When talking about pesticides, we're looking at food crop uses as well as non-food-use exposure scenarios. The same priority is applied when approving all pesticides for use in Canada.

The Pest Management Regulatory Agency regulates all pest control products imported into, sold or used in Canada under the Pest Control Products Act. I should mention that the PMRA is a branch of Health Canada, just to clarify that. Our main responsibility is the premarket review — that is, the stringent, science-based evaluation that takes place before a chemical can go to market in Canada.

We also have post-registration oversight. This includes compliance activities, monitoring and surveillance, incident-reporting activities and sales data reporting. We're also mandated under the Pest Control Products Act a re-evaluation program. That's a scientific reassessment of every chemical on a 15-year cycle.

As I mentioned, the legislative authority for that work falls under the Pest Control Products Act and regulations, 2006. The primary objective under the Pest Control Products Act is to prevent unacceptable risks to people and the environment from the use of pest control products. There's also a statement to enable users access to pest management tools — that being those pest control products themselves or sustainable pest management strategies.

As I mentioned, the Pest Control Products Act is very recent in terms of its renewal in 2006. The new act came

into force on June 28, 2006. Some of the fundamental changes at that time were to strengthen health and environmental protection. The current practices that are used in our evaluation process are now set into law, those being public consultation, taking into account sensitive subpopulations, aggregate and cumulative exposures. It also talks about more transparency to the registration system. This is the availability of information to Canadians, basically, through our website and through our publications.

It also strengthens post-registration controls on pesticides, those being mandatory incident reporting, re-evaluation and increased fines under the compliance arm of the Pest Control Products Act.

This slide just shows a bit of the distribution of legislative responsibilities when it comes to pesticide regulation in Canada. As I talked about, the federal role is to look at new pesticide registration and the re-evaluation process; science-based, health, value and environmental assessments, which are conducted by our scientists; the compliance and enforcement; and the development of sustainable strategies with respect to food crop production and also for non-food uses of pesticides.

Provincial responsibilities include transportation, sale, use, storage and disposal, training, certification and licensing. They play a large role in the development of certification programs across the country. They also can place further conditions on use and in accordance with federal standards.

At the municipal level they do have, depending on the province, authority to develop bylaws for further conditions on use where that authority exists, also in accordance with federal standards.

I'm going to talk a bit more at length about the human health risk assessment. Certainly, that's the area that I'm most familiar with. It tends to also be the area which people have the most concern with when they're referring to pesticides and their use: looking at human health effects.

We also have, of course, our division which looks at environmental impacts and our agricultural people, who look at whether the products actually do what they're supposed to do in terms of efficacy.

I'm going to talk about human health risk assessment. I'm going to talk a lot about hazard, which is the toxicity of a product, and the exposure, which must be integrated to understand risk. Certainly, most substances have the potential to cause an adverse effect in high enough doses, but there's usually a dose where no harmful effect will occur. Generally, as the amount of the exposure increases, so does the risk of a toxic effect. Our health risk assessment puts a strong emphasis on determining both the amount and duration of people's exposures, including sensitive subpopulations.

You'll hear me talk about acceptable risk. Acceptable risk is defined under the Pest Control Products Act, and it refers to a reasonable certainty of no harm to health, future generations and the environment from use or exposure when used according to labelled directions.

[0820]

When we look at the scientific studies which are required to register a product in Canada, there are some 200 scientific studies which are required to be submitted by a registrant when they put a submission in to us. In that package there are specific

requirements, studies which must be submitted for that chemical to even be considered.

On the health assessment side there are numerous toxicology studies — those being the animal toxicity studies — that look at the hazard. We also look at epidemiology information that might be available for that product. A key component is the occupational and bystander exposure. As I talked about, it is very important for us to consider not just the toxicity of a particular chemical but whether or not a person is actually going to be exposed to a chemical when that product is used.

We also, of course, look at dietary exposure, as these products are used on food crops across Canada. We look at what residues might remain on a food crop when that pesticide is used.

As I mentioned, we also have the group that looks at environmental assessment. They look at environmental toxicology studies. They look at environmental chemistry and fate. What happens to that chemical when it's sprayed into the environment? How quickly does it break down? Where might it end up in the ecosystem?

We also have a group that looks at value assessment. People with agronomic backgrounds look at the efficacy. Does that product actually do what it claims to do on its label?

We also look at competitiveness, when they are determining the value assessment and sustainability. Can that product be used sustainably into the future?

B. Bennett (Chair): What do you mean by competitiveness?

L. Hanson: They look at existing products which may be on the market already. For a product to come onto the market…. It is certainly an open market. But they will look at, in terms of risk, if they brought a new product onto the market, what that would do to the risk level overall in terms of exposure to chemicals.

If they want to bring something in that in most cases is simply adding to something that is already there, certainly they can do so, but our scientists will look at that in determining the overall value in how that particular pesticide is going to contribute to the marketplace.

This is an old picture that really looks at…. Just to give you a sense of the data which is submitted to support a pesticide registration. Now, typically, we receive most of this, of course, electronically. This is a few years ago, but those are basically six-inch binders that are simply the

toxicology studies which are required for a company to submit to us for review, and that's what our scientists look at. That is actual raw data that pertains to the animal toxicity studies, which our scientists are required to look at in their analysis.

S. Fraser: Can I ask, just for clarification: did the companies provide that? It's not an independent third party or…?

L. Hanson: I'll talk a bit more about where the source of that data is. In the end it will be the companies. It is their requirement to submit that data to us.

This is just a slide which shows kind of the overall picture of our health assessment, our scientific assessment looking at the environment, looking at human health, looking at value. All this is integrated for us to conduct risk management, to make a risk management decision in terms of making a registration decision in the end.

So all of those factors will be considered when our agency management committee sits down to make a determination on the registration of a chemical.

This goes to your question regarding the source of the information, the source of those studies. Where do those studies come from? As I mentioned, the onus is certainly on the applicant to submit all the required studies, those some 200 studies which I talked about for standard food crop use.

The individual studies within a submission are often conducted by different independent third-party laboratories. In some cases, some of the larger companies do have their own laboratories. These are companies which, in many cases, are also involved in pharmaceutical development, so they have their own laboratories for development of these toxicology databases for conducting the animal toxicity studies.

These studies are certainly very expensive for the companies to conduct. They are large animal facilities. I'll talk a little bit about the tox studies and how those are developed.

S. Fraser: Are these peer reviewed? Is peer reviewing a requirement? Are these studies…?

[0825]

L. Hanson: That would be the role of the PMRA, the peer review.

These studies that I'm talking about must follow the internationally developed and validated test guidelines, and these are OECD guidelines that exist for development of toxicology databases throughout the world. These are guidelines that are in place to ensure that the development of that data meets scientific standards and is open to scrutiny.

In many cases you'll hear me talk about the good laboratory practice. There are many checks and guidelines in place when a laboratory is developing these animal toxicity studies in terms of their handling of the data.

It's an extremely intensive process. At the end of the day that individual data for every single animal that is found in a toxicology study makes its way to our scientists at the PMRA. This extensive data reporting allows Health Canada scientists to conduct their independent analysis, their peer review of that raw data.

We also look at published scientific literature. Typically you would only see this post-registration, so for products that have been around for a while, that's when you start to see studies appear in the literature. Those studies make their way to us. We have an extensive Health Canada library system. Any publications which come up with regards to a particular chemical are forwarded to our scientists.

I talked a bit about the hazard and the exposure and the importance of that in determining risk. The hazards, of course: what the hazards are and at what doses. That's essentially determining what the toxicity profile of the chemical is. We have to be able to determine what a dose is where there are no effects. We then have the ability to apply uncertainty factors, at a minimum a 100-fold safety factor, to establish an acceptable level of human exposure.

After conducting these animal toxicity tests, we look for the most sensitive species in those tests. We look at the dose where there are no effects in that animal. We then apply at least a 100-fold safety factor to that dose when we start to set what is called a margin of exposure.

In looking at the exposure side of the equation with regards to risk assessment, what are the activities that would create the exposure situation? By what routes does the exposure occur? Is it through the diet? Is it by skin? Is it through inhalation?

We have to be able to determine how much the exposure is and be able to quantify that amount when the product is used according to label. This allows us to determine what the risk is, comparing that exposure to acceptable levels which are based on a calculation using the 100-fold safety factor. We can then make a determination if those risks are acceptable. We approve only those products that meet these Health Canada standards.

What types of hazards do we look for? In the range of toxicology studies we have studies that look at acute effects from a single high dose — oral, dermal, inhalation, eye and skin irritation — and we also look at potential for allergic reactions.

We have short-term exposure studies that represent a period of two weeks to three months. We also look for reproductive effects over two generations in a multi-generation rat study. We also look for the possibility of birth defects. We look for neurotoxicity.

We also have the long-term or lifetime exposure studies, which are conducted in both rats and in mice. We have the ability to determine cancer potential over a lifetime,

including the genotoxic potential. We look at particular studies which look at the

ability for that chemical to have any sort of mutagenic effects. We look at studies both in vivo, that being in the live animal, and also in vitro. Is it possible for that chemical to have mutagenic effects? We also examine available epidemiology information in conjunction with the toxicity findings.

Why do we look at animal toxicity studies? Of course, we're looking at mammalian species to represent humans in this case. A range of doses are tested to cause toxic effects in order to understand what levels are non-toxic. This allows us to compare effects across different mammalian species for consistency and to identify which species are most sensitive.

The non-toxic level in the most sensitive species is the basis of setting an acceptable level for human exposure. The acceptable level of exposure is at least 100 times lower than that non-toxic dose.

How do we assess cancer potential? As I talked about, we have the cancer studies in two mammalian species which have daily exposure to that chemical over the lifetime of that species. The cancer studies examine all the organ systems. They look at clinical chemistry, blood and urinary testing, tissue pathology and clinical symptoms.

[0830]

As I mentioned, we have a series of in vivo and in vitro mutagenicity tests which examine the possibility of DNA effects. We check for precancerous lesions in the other animal studies as well. We examine the available metabolic and mechanistic studies to better understand how a chemical behaves in the body and causes its effect. We check for similarities with other known chemicals, and we also look at epidemiology studies. Typically you're only going to see epidemiology studies, as I mentioned, for products which have been registered for a period of time.

How do we measure exposure? In terms of dietary exposure, we have specific studies to show how much pesticide residue may be present. When a product is used on a specific agricultural crop, how much pesticide residue might remain when that product is used? On treated crops we also look at how much would end up possibly in the drinking water and also how much might be transferred to meat, milk and eggs in the production of those animals.

We also look at non-dietary exposure. Specific studies measure how that pesticide residue might be transferred to people, including children, when they do certain activities. Certainly, this applies to the farmer in the field using those products and for the homeowner actually using the product. We even have studies which look at potential exposure for children playing on treated grass.

Health Canada determines the amount Canadians may be exposed to through their diet and through other activities. These potential exposure levels are determined for

various sensitive populations and age groups, including infants, toddlers, children, adolescents and adults.

The potential exposure is certainly overestimated for protection of these sensitive subpopulations. Health Canada registers only those uses where human exposures are well below a level that is non-toxic, at least 100-fold lower.

This is just a bit of a summary of the scientific approach that we use. Back in Ottawa we have a large number of in-house qualified scientists with a wide range of expertise, some 350 scientists at the PMRA. These are scientists with backgrounds in chemistry, biology, toxicology and agriculture. Certainly, many of them hold PhDs and lots of them hold MScs as well, in their particular fields of study.

There certainly is a strong reliance on a comprehensive body of scientific evidence and scientific methods that examine both hazard and exposure. Our approach is consistent, certainly, with the approach of other international regulatory bodies, including the Environmental Protection Agency and the European Union countries as well. They use this same risk-assessment paradigm when looking at pesticide registration.

Science is the basis of all Health Canada regulatory decisions for pesticides, and certainly, the approach is precautionary.

What about some of the older products that are on the market? I talked about the pesticide re-evaluation program. To ensure that pesticides meet modern standards for protection of health and the environment, pesticide decisions are re-evaluated on a cyclical basis. Right now over 90 percent of all registered pesticides have undergone a full modern assessment in the last 15 years.

Compliance with the Pest Control Products Act is monitored through a program of inspections and investigations with a variety of enforcement options available to our compliance officers, and we have compliance people in our regional offices across the country.

J. Slater: Is that through CFIA?

L. Hanson: The actual branch of Health Canada has our compliances officers. They do work in conjunction with the CFIA. CFIA is responsible for looking at pesticide residue in the field.

R. Fleming (Deputy Chair): How many products have you taken off the market based on re-evaluations?

L. Hanson: I'm sorry. I don't have an exact number in front of me. I could certainly get that for you. There are a number of products that may have disappeared under re-evaluation.

R. Fleming (Deputy Chair): Do you have a percentage of products that fail to meet your standards?

L. Hanson: I couldn't give you a percentage. Typically what happens is in looking at a product that has been re-

evaluated, we are, of course with today's lens, looking at the database that we have in terms of information that's available.

One of the first steps, of course, would be to contact the registrant to indicate that product is under re-evaluation. In some cases, certainly, the marketplace has changed for that product. In other cases, they may not wish to proceed with supplying additional data which may be required to register that product.

Certainly, a number of products have disappeared, label changes have been made, and additional mitigation measures have been put in place under the re-evaluation program. I'm sorry. I don't have the number for you, but I could probably get that from the re-eval program.

[0835]

J. Slater: On that point, using a fungicide such as Quintozene…. Are you familiar with it? The manufacturer of that has now gone to all the golf courses in the Interior. It's to prevent snow mould. They've gone to all the golf courses saying that Quintozene is no longer available. This chemical that you have to buy now is three times as expensive, and it only works half the time.

How much input would you have on something like Quintozene, when it's done by the company rather than you guys?

L. Hanson: I talked about our scientists on the efficacy side of things. In doing their value assessment and looking at the product, they would certainly have conversations with the stakeholders. In that case, you're talking about golf courses. They would certainly be aware of concerns that have been brought forward.

They would also have a conversation with the registrant. At the end of the day, of course, it is the registrant who can make the decision whether or not they want to proceed with a particular marketplace product.

Certainly, there is definitely a consultation which takes place between our scientists and the registrant and other stakeholders, with respect to any given industry.

S. Fraser: Lindsay, is there a role formally in the consultation process for NGOs, interested parties but non-government parties, to be involved in the process, as far as input goes?

L. Hanson: Certainly there is. For any of our decisions, whether they be for new chemicals or for decisions made under the re-evaluation process, there is a mandated requirement that we consult on any of the decisions made. Typically, that is for 60 or 90 days.

Those assessments are posted on our website. Our stakeholders, many of them, have access directly to information lists and are made basically instantly aware. As soon as that review is posted, it's available for consultation and public input before any final decision is made.

S. Fraser: All right.

If I could just go further, in another life, Lindsay, I was a wildlife technician for the Chemical Control Research Institute in Ottawa, and my specialty was birds. We were looking at pesticide spraying for spruce budworm, in the Maritimes primarily and in Quebec also. Where we saw an impact on birds, which are kind of a canary-in-a-coal-mine kind of a species, was when there was an overspray, a mistake that was made.

With that in mind, we're talking about cosmetic pesticides here. This is our role as a committee. I'll use Vancouver Island because I know it better. Most of the land — the forest land, for instance — is privately owned. Now it's private managed forest land on Vancouver Island, unlike the rest of the province. I've heard there's glyphosate and other products used there in quantities that I don't know that anyone knows the amount of, except maybe that's proprietary for the owners of the company. It's for commercial use on the land after it's been harvested.

Along with that, we have the government okaying sprays through integrated pest management plans.

I made the point earlier around the E&N corridor, which was supposed to be a one-time thing. It's become an annual thing without, really, any notice or any input from the public. Then you've got, on top of that, a complex series of watersheds, in this case all along Vancouver Island, that this is happening on.

Then you have, of course, people wanting to have nice green lawns, which is what we're sort of looking at as our prime role here, the cosmetic use.

Without any one body knowing the cumulative amount of products being used on watersheds which haven't been fully mapped, or mapped at all, how do you do a precautionary principle? When the level is within your hundred times, it is a good one, but if you do not know the cumulative amounts of pesticides or herbicides being used in a watershed and which types are being used — and their combined effects may not have been specifically studied — how do you mitigate the health risks?

[0840]

L. Hanson: You touch on a number of points in that question. I think what I would start with is basically a discussion of the label. I hope I was able to emphasize enough that the label for a pesticide registered in Canada is a legal document. The label must be followed when a product is used in Canada.

In some of the scenarios that the MLA is referring to, certainly where products are being used maybe by aerial application, etc., where there's potential for watershed exposure, certainly the provincial ministry people do get involved in terms of those sorts of licensing certification checks that are in place. That typically exists at any point where there's potential for water body exposure. They

would be working with the provincial ministry people on that particular situation.

S. Fraser: But if we don't know. I mean if a water body is underground, if it's aquifer-based…. It's a combination of surface and underground water systems on Vancouver Island, certainly. If you don't know where one watershed starts, one ends….

L. Hanson: Right. Now you're getting more towards what may be some of the…. As I talked about, when the environmental assessment people do their job, they're looking at what happens to that product when it is sprayed in the environment. Where does it end up? How quickly does it break down? Where does it go? Is it bound up in the organic matter? Is it broken down by sunlight, sometimes almost immediately? What is the potential for that product to end up in the water table system? Certainly that is data that our environmental people consider and look at.

In a particular use pattern that you're describing where they might be a lot of overspraying, they would certainly be aware of the properties of that chemical, and that would be reflected on the label in how it's used. Certainly they are trying to prevent the scenario that you're talking about in terms of products accumulating in a particular environment. They're looking specifically for that type of scenario and to prevent it.

You overlay that with, maybe, homeowners using a product in their back yard. Again, that pertains to the label and how that homeowner is supposed to be using the product. Again, the label itself is a legal document. Those directions for our use are there for a reason. That is the basis for our entire evaluation process. Those label directions for use and precautionary statements were developed based on the evaluation that we did.

In all cases, the rate for the way that the pesticide is used is the lowest rate possible in order for it to remain effective to do what it's supposed to do. Is it going to be controlling that insect or that weed or that fungus?

S. Fraser: But that's if we do know how much is being…. If you've got, say, three different….

B. Bennett (Chair): Members, if it's okay with everybody, we should probably stick with our original agreement to allow Mr. Hanson to finish his presentation. We're almost there. Then we can go around the table. We do have, I think, ample time for questions.

Why don't you just proceed, Mr. Hanson. We're almost finished.

L. Hanson: That's fine.

In some of the other programs we have and approaches in looking at the whole registration process and pesticides in general, we do have specific registration programs for biopesticides for non-conventional products. Some of these are seen in the marketplace now — things such as the soaps, the diatomaceous earths, other products which are not seen as traditional chemistries with respect to pesticides.

Many of our programs of course involve international collaboration. We work quite closely with the Environmental Protection Agency in the U.S. and also other international bodies — many of the OECD countries right now — and share expertise.

I talked about the ability to establish the lowest effective rate to keep usage to a minimum, to the minimum amount necessary. We also have label improvement programs to update mitigation measures. Again, that goes towards reducing a person's exposure.

We also have our compliance activities which promote best practices. That, in many cases, is looking at specific marketplace activities and how a particular product is being used to make sure that people are following the label, to educate them, of course, on the value of following the label and the importance of using, in some cases, the personal protective equipment which may be necessary in using a particular product.

We also now have in regulation a mandatory incident reporting program which will help us identify areas that certainly require follow-up. So in any case where there is an incident, and that can be an environmental incident or a health incident, a person who uses the product reports that to the manufacturer. The manufacturer is required by law to submit that information to the PMRA, and we look at that data.

[0845]

In summary, pesticides are among the most rigorously tested substances in the world. Health Canada's scientific review process ensures that pesticides approved for use in Canada can be used safely when label directions are followed.

Health Canada is actively involved in various initiatives to provide Canadians with access to newer and lower-risk pesticides. All pesticides registered in Canada for agricultural, forestry, structural, and lawn and garden uses must all meet the same stringent health and safety standards.

Health Canada approves only those pesticides that show no increase to health risk, including cancer.

A little reminder slide that we talk about with various groups says that people should use pesticides judiciously and only for their intended use, carefully follow the label directions and take measures to become better informed about safe and effective use. To prevent accidents, always store pesticides safely in original and clearly marked containers and out of the reach of children. That appears on every label. If you have a pest problem, take measures to become better informed about various control options, including pest prevention.

This is contact information for the agency. We have a 1-800 number that is open during the day and, certainly,

by e-mail as well. We also have a website that talks about all of our consultation decisions. All of our proposed decisions for registration of products on re-eval and for new chemicals will be listed on our website as well as a lot of information pertaining to the registrants themselves and also for the users — for the farmers and for the homeowners.

That was the length of my slides, and I'm certainly open to questions, for sure.

B. Bennett (Chair): Thank you very much, Mr. Hanson. We appreciate that.

Scott, sorry to cut you off, but there will be, I think, adequate opportunity now to ask questions. Can you just give me a hand sign if you're interested in asking a question?

S. Fraser: I'll just try to finish that thread at some point.

B. Bennett (Chair): Okay. Listen, Scott, you've got the floor for a couple more minutes. Why don't you finish your train of thought there.

S. Fraser: I'll try not to monopolize too much time.

Lindsay, thanks for this. It's all very informative. The federal government — specifically, the pest management regulatory agency — one of their roles was maintenance and surveillance, which was on one of the slides.

The question is if you've got multiple users of herbicides and pesticides in the same area, an overlap area, and we're adding into the mix, which is already added into the mix, the cosmetic use of pesticides or herbicides or whatever the product is for domestic use — I guess not agricultural use — where does the agency…?

How do you do the surveillance and monitoring? Who compiles the overlap information so that you know the amount used and the types used and the potential effects of the combination of use? Like, how many people do you have that actually on the ground do that monitoring and surveillance, and is that enough? Will that work to protect public health?

L. Hanson: Okay, a couple of things there with respect to compliance and enforcement. Kind of over top of all that we do have what's referred to as the Federal-Provincial-Territorial Committee on Pest Management and Pesticides. This committee exists. It has regulatory officials from each province that are involved in pesticide regulation on this committee as well as, of course, members from our federal agency.

Basically, they meet typically almost monthly by teleconference to discuss maybe issues that you described, scenarios such as that, where there may be a particular use of product, and there may be scenarios where there's a potential concern for the way that a product is being used.

That information, of course, would be given to our compliance people. As I mentioned, we have regional offices across the country in each province. We have staff. Essentially, they are looking at compliance or enforcement activities where they have been directed. Like, they're given information, a scenario which you might describe, where there is a potential risk possibly to either human health or the environment, so they want to look closer at that. They would maybe target that scenario that you're talking about.

[0850]

Our regional offices work closely with the provincial ministry officials, so there is that compliance arm as well, when you talk about kind of the overall picture.

Certainly, we don't have hundreds of staff in the compliance arm of our operation. As I said, they are posted in regional offices across the country. They have specific programs — they call them marketplace inspection programs — where they target specific use. They want to look at how a product is being used.

You may be describing a scenario where they would want to target something like that, where there's potential for multiple uses of, let's say, the same active in various use scenarios. They would be looking at: is that product being used properly? Are people following the label? At the end of the day, they want to ensure that the product is being used safely.

The scenarios which you described. I talked about how, certainly, our scientists within the evaluation assessment division are concerned with how that product acts in the environment. When it is sprayed, does it end up in the water table? How is it broken down in the environment? How long does it stay on the particular plant that it

might be sprayed on? What sort of residue would it leave? What are the potential impacts on wildlife?

They do have data, in particular on birds and other mammalian species that you'd find in any sort of ecosystem. We do have data, as well, that looks at the impact of spraying the product on a particular species. Certainly, their concern and their goal at the end of the day are to limit any sort of environmental impact such as you're describing.

J. Yap: Thank you, Mr. Hanson, for your presentation. You mentioned international collaboration. Can you give us an idea of how Health Canada's processes, protocols, expertise — your whole program — compare to other jurisdictions?

L. Hanson: Certainly I would talk about Health Canada being at the top of that list. Of course, I touched on how the guidelines for the studies, which are required to be submitted by a registrant, must follow OECD guidelines of the countries which get together and look at these particular assessments. If you look at a pesticide submission in Canada, you would see the same types of

studies submitted to the U.S. EPA, to the U.K., to other countries in the European Union. The data set that's required is almost identical across these different countries.

That said, the more scientists you have around the table, the better. We have collaborative activities that we do with many of those countries. Of course, with the proximity of our neighbours to the south we do a lot of work with the EPA. We have joint review processes where we have scientists on both sides of the border looking at particular studies on the same chemical. So there is kind of a peer-reviewed type of process in place there.

We also have established that sort of working relationship with other countries — Australia, New Zealand and some of the European countries themselves.

In terms of the rigour, the risk assessment paradigm that I described, certainly the system that we use in Canada is really at the top of the heap. It is, as I described, a rigorous process. Certainly, the chemicals themselves have the potential to be hazardous. That's why we have a strong regulatory system in Canada.

J. Yap: How about the definitions? You mentioned that acceptable is kind of the threshold — acceptable risk. Would Health Canada's definition, or how we come to judge that word "acceptable" in applying it to a chemical, also be comparable to the other developed countries?

L. Hanson: Yes, it would. I talked about that 100-fold safety factor. That's typically a minimum margin of exposure that is required in terms of determining that

acceptability. I didn't talk about it, but we do have the ability, certainly, to increase that margin of safety by applying additional safety factors.

[0855]

If there are some concerns in the particular database — our scientists are looking at, for example, the toxicology studies and have a concern with the way a particular chemical is acting in a mammalian species or how it might behave or impact a sensitive subpopulation such as the young — we have the ability to then apply an additional tenfold safety factor, so you're talking about at least a minimum 1,000-fold safety factor. That is also similar to other programs.

The U.S. EPA has the FQPA factor which they use. We have our own PCPA factor that we use. But really, it's there to put in place extra precautions with respect to those sensitive subpopulations that I talked about.

J. Yap: You mentioned one of your roles is post-registration oversight, which includes incident reporting. Could you expand on that? What does that entail?

L. Hanson: Yes, it is a specific requirement under the act. We do have a regulation in place that any incidents,…. They can be environmental; they can be human health; they can be pets, that sort of thing. Any sort of incident that is reported by an individual back to the manufacturer, the manufacturer is required by law to submit that information to us.

We have been gathering that information over the last couple of years to look at what sorts of incidents are occurring with the use of a particular product. That enables us to look at any potential for…. Is there any trending there with respect to how a product is being used? Is there a flag there that we should be looking closer at? It gives us an ability, maybe in a certain instance, to place an additional mitigation measure on the label or at least allow us to look a little bit closer for a particular effect.

J. Yap: So you have a database of incident reports that is within your database and informs Health Canada.

L. Hanson: Yes, and that's also on our website and will be publicly available.

J. Yap: Just to think of a specific example, say, pets get sick from exposure to a lawn after it's recently been sprayed, and that's reported to the manufacturer. Would that come to your attention?

L. Hanson: Yes, they would be required by law to submit that information to us.

J. Yap: And certainly if a child was getting a rash or something, a reaction, that would be reported as well.

L. Hanson: Yes.

J. Yap: Okay. If I may, Chair, I have one more question. Lastly, you mentioned a label is a legal document. To what extent is that enforceable?

L. Hanson: Right. As I talked about, the label itself is really kind of the legal interpretation of our overall assessment of that product. So the directions for use that you find on the label, any of the precautionary statements that were developed, any of the hazard labelling — you know, a person should wear gloves or they should wear goggles — and also how the product is being used. On what pest? On what crop?

All of that information is the result of our evaluation work from our health assessment division. Our environmental assessment and also our ag assessment people develop that label. At the end of the day, that is the determining factor as to how that product can be used and is really the basis for us being able to conduct a risk assessment, because it goes back to how that product is being used and at what rate.

As I mentioned, it's a legal document. Our compliance and enforcement people have the authority under the

act to issue certain fines, certain penalties, with respect to that label if the label is not being followed. So it does have a legal basis.

J. Yap: To individuals who apply the chemical?

L. Hanson: Yes.

R. Fleming (Deputy Chair): Thank you, Lindsay. I just wanted to ask a few questions that are not in any particular order. The one I wanted to ask is about compliance and what idea the PMRA might have about how its products are used. Of course, it states what an acceptable risk is based on an assumption that there's 100 percent compliance.

Now, I know in the province of British Columbia that 92 percent of beer bottles are returned and 80 percent of pop cans. I'm wondering whether your agency has any idea what the compliance rate is for Canadians that buy the types of products that we're discussing as cosmetic pesticides at this committee.

[0900]

L. Hanson: In this particular case, you're referring to homeowners, if you're talking about urban use products. Certainly, I've tried to talk throughout the slides of

how it's a precautionary approach that we do use in terms of a conservative measure of potential exposure and its relation to that hazard number that I also talked about, where we look at…. We've taken the most sensitive species, we've looked at the dose that does not cause any effect in that species, and then we apply that additional, at minimum, 100-fold safety factor. At that phase you do have a fairly large margin of safety.

Certainly, when we produce a label, we are looking for 100 percent compliance. We do have our compliance and enforcement regional office. If they become aware or have been given information that in a particular situation a product is being misused, we'll target how that product is being used. Each year they do have marketplace programs that specifically look at how a particular product is being used.

R. Fleming (Deputy Chair): How many of those offices are in British Columbia?

L. Hanson: There are offices in Vancouver and Kelowna.

R. Fleming (Deputy Chair): And you find it in the blue pages?

L. Hanson: Yes, you would, and certainly even through the number which I have given you there, with the PMRA. They can certainly put you in touch with our regional pest control officers.

R. Fleming (Deputy Chair): So it's 100 percent compliance that's the….

L. Hanson: Well, certainly our goal when we put out a label is that we would like…. As I said, it's a legal document, and we want people to follow it. That's how the product is designed to be used, and that's how it's designed to be used safely.

R. Fleming (Deputy Chair): Okay. I just wanted to ask about assessments that are being done or re-evaluations around risk to infants and toddlers and children. I think this is sort of something that maybe your agency has updated and had an additional focus on recently. Is that a fair statement?

L. Hanson: I wouldn't use the word "recently." I talked about how in 2006 certain practices were entered into law in terms of providing certain safety factors with respect to sensitive subpopulations. However, having worked in the health evaluation directorate, the use of those practices and looking at the particular sensitive subpopulation dates back many years prior to that. The ability or the use of applying additional safety factors and being considerate of other sensitive subpopulations that you've talked about, whether it be children or infants, we've been using for a number of years — that approach.

R. Fleming (Deputy Chair): Okay. Well, within that approach, I just wanted to ask how that's done. I would imagine that body mass is relatively easy to calculate and do a risk assessment on. But around toxicity and the behaviour of infants and toddlers, they're low to the ground when they're outdoors and behave a little differently than we do. The labels on products clearly state that they are toxic to wild animals, fatally so, and there are various spraying instructions that are quite complicated. I'm wondering how that works.

Additionally, the assumptions that you make…. If you're talking about a product that is supposed to break down in sunlight, well of course not all backyard conditions are the same.

I'm wondering how all of those various factors are taken into account when you're assessing, I think, much higher risks for small children and the risk of ingesting things that shouldn't be ingested that have been exposed to pesticides.

L. Hanson: Sure. You've raised a couple of things there. Firstly, if you're talking about the back yard and you're talking about homeowners, you're talking about domestic products. These are products that have been designed to be used by homeowners in and around their home. These are certainly different from the commercial products which are being used by farmers, by other user groups.

[0905]

The domestic products themselves typically, for one thing, do not have additional requirements, let's say, for

the homeowner to suit up, to wear gloves, to wear goggles. We certainly have to be convinced that the toxicity of that domestic-use product is low enough and the exposure situation is low enough that we won't require those additional mitigation measures to be necessary.

Typically, the domestic products themselves are of lower toxicity. You've raised the discussion of the actions and the mannerisms maybe used by small children — infant children, even. For that very reason, for a particular product that was used quite often in the urban-use environment, we actually have exposure studies where we have — of course, not with the particular chemical — the actions and behaviours of a child sitting on a lawn, the hand-to-mouth sorts of activities that might be involved with them picking up a blade of grass or soil and using that as a basis for determining what the potential exposure would be.

Once we have that number, compiling that with the actual toxicity of the product being used in that situation we can make a determination whether or not that sort of activity or the use of that product would be safe in that sort of situation. That's where I tried to, I guess, express that we are really looking to protect those sensitive

subpopulations. In this case, we actually have pretty good solid data on what would be the potential exposure when an infant is placed on a lawn like that.

R. Fleming (Deputy Chair): I wanted to carry on and ask about hazards as they exist in real life. You've sort of given an explanation, again, about usage according to label under ideal conditions that are in full compliance.

What about situations where there are multiple types of pesticide chemical applications used on a homeowner's lawn or even a fog product in an adjacent area or a product that will run off onto a property — or could? You've got multiple scenarios where there could be additional exposures also, especially around the child and infant population — cumulative exposures over those developing years. What kind of testing is being done or risk-modelling is being done by your agency?

L. Hanson: We are certainly doing some risk assessment, risk-modelling work, as you talk about, with respect to cumulative exposure. Actually, within the act now we do look at cumulative exposure, that being what their exposure would be coming from water, from their exposure when the product is used in the back yard, from food. So if that particular chemical is used in various scenarios, what would be the possible cumulative types of exposures?

If you're referring to, let's say, numerous products and the possibilities for there to be some sort of potentiation interaction, we do have some studies that have been developed, particularly for chemicals that act in the same way. Some of the insecticides certainly have the same mode of action with respect to insects. You may have different technical products that have that particular mode of action. We want to know: is there a potential for there to be some sort of potentiation reaction when those products might be used in close situations?

The ability to look at, in the scenario you've described where there might be various chemicals used in various situations…. I think you're probably driving towards what mixtures of chemicals. That of course is a very difficult scenario for us to assess. The idea of mixtures of chemicals is really…. To put a number on that is extremely difficult. For us to be able to conduct a scientific assessment of those particular mixtures is very difficult.

I think that's where we also try to…. If we go back again to domestic products, typically what you are seeing is there are really specific products that are registered being used by homeowners. Typically those products, being herbicides, are registered for their weeds in their back yard and, in some cases, some insecticides. But in most cases, there are particular-use instructions which would talk about when those products are used. I guess we would hope to avoid the scenario where you have a mixture of those chemicals and a potential exposure situation like that.

But the idea of: do we have the ability to measure all of the impacts of mixtures of chemicals? No, that's extremely difficult to do.

R. Fleming (Deputy Chair): I wanted to go back to the issue around compliance. As you described it, a warning label on these products is, in your view, a legal document, or is a legal document.

L. Hanson: Yes.

R. Fleming (Deputy Chair): I would suggest that it's probably not very well read, compared to other additional legal documents we have to deal with in our lives. For example, there are some very common weed and garden products where it requires the applicant to have an understanding of the soil condition in their yard, which is, I think, beyond most of us — you know, whether it is permeable or not. It requires the homeowner to have an idea about precisely where the water table is on their property to avoid contamination risks.

Again, I wanted to ask your agency, because it is part of your core responsibilities around compliance: have you ever done any surveying of people who use these products whether they can, in fact, describe accurately many of the components that are assumed for safe, acceptable use in this legal document, as you described it?

L. Hanson: I don't have exact numbers in front of me. In terms of work that our compliance group may have done in the marketplace, I can certainly ask them. I believe they do have surveys where they have gone to users of these products to basically answer that question

you've asked in terms of what they know about the label, because as I've talked about many times, we want them to be reading the label.

We have programs in place — again, through our website, through our compliance arm, through our provincial associates — for reading the label, to emphasize that with users. We had quite an extensive program with regards to what's referred to as healthy lawns, where we gave people information on how to produce a healthy lawn — not necessarily using pesticides but management processes, simple things that people can do to keep the healthy lawn that would reduce their reliance on a pesticide.

So yes, we do have concerns that people need to read the label. We've tried to emphasize that. We certainly promote that, and our compliance people certainly promote that all the time.

Again, if we have a particular concern in a particular sector that a product is not being used according to directions, our compliance people have that ability to go in and to do some monitoring compliance activities.

B. Bennett (Chair): Members, I was going to try to have this portion of the meeting over with by 9:30. I don't think we're going to make that. I do want to save a few minutes out at the end, just so that we can have a discussion about the business plan and schedule going forward, but we can probably get through that in 15 minutes, I hope.

So maybe what we can do at this stage is let the two members who haven't had a chance to ask questions, ask their questions. Then if there's time left, I'll come back to others that still want to ask questions, if that's okay with everyone.

J. Slater: Sure, a couple of things. You said on one slide that you look the toxicity effect if it was 100 to 1. As a commercial grower, I buy concentrate. I'll use two examples: Roundup, or the Roundups of the world, and Diazinon.

If I inhaled either of those fogs or sprays, I'd be sick. So how do you, say…? You can go into a Home Hardware and buy a bottle of Roundup, and it's already diluted at 100 to 1, I'm assuming — right? — because it's residential. But you guys look at the toxicity effect where if it was not 100 to 1 — right?

I mean, those two alone wouldn't be legal if a child ingested some of that at the concentrated level.

[0915]

L. Hanson: Okay, if I can take that one for you.

In the particular label for both of those scenarios which you described, whether that product be a concentrate or whether it be what we refer to as a ready-to-use product, part of the database, part of the toxicology studies which are required to be submitted are actually conducted with what we refer to as that end-use product. So in the case of the ready-to-use, whether it be a 100-to-1 dilution or whatever the dilution rate might be, the label on that particular product…. There are particular animal toxicity studies. Those acute studies that I talked about — oral, dermal, inhalation, acute corrosivity for the eye, for skin and also for the potential to cause dermal sensitization — are studies which are particular to that end-use product itself.

So the actual product you buy off the shelf has been tested on animals and allows us, then, to develop the label statements that are required for the use of that product.

If I switch that over to the concentrate, that concentrate, as well, had to have those same studies conducted. So in the scenario where you described…. They take the cap off, and there may be a different inhalation hazard. That would be known based on the studies that were submitted. That's how we developed the actual label statements and the precautions on the labels themselves. So we have data which pertains to both of those scenarios which you talked about.

J. Slater: Okay. The other one, quickly, is a chemical used for codling moth on apples in the Okanagan. It's called Guthion. Three years ago all the farmers were told: "You're not going to be allowed to use that chemical in three years." Is that to allow the chemical companies to come up with an alternative? Or is it that toxicity levels that you guys have determined or the PMRA has determined are unsafe for humans, obviously, or you wouldn't be outlawing it? How does that work?

L. Hanson: Now, I don't have specifics with respect to that particular technical product, Guthion. I could probably get more direct information for you on that. If that was something that was identified in the re-evaluation program and they made a determination that it would be better if we moved away from that particular technical active and its use for whatever reason, depending on what sort of health impact there might be when that product is being used, there could be various sorts of phase-out programs in place.

If there was something immediate in terms of a human, outdoor and environmental impact that we thought was imminent, certainly the minister has the authority to immediately remove a product from the marketplace.

In other scenarios where that marketplace is changing — maybe there's been a change in the chemistry from that registrant, and they're simply going away from that particular active — we would then allow a certain phase-out period to allow stocks to move through the system.

But in terms of particulars with respect to Guthion, I don't have that for you.

J. Slater: All right, thank you.

[Page 35]

B. Stewart: First of all, the reason that we're here is because there's a concern or a perceived concern about products that are used cosmetically as being carcinogenic — okay? I mean, there is always that concern. I'm sure that's the reason that Health Canada is considered to be one of the more rigorous governments and organizations that test products around the world.

I don't know how we help the consumer understand that we do have a safe system. It may not be completely perfect, but I guess one of the things that I'm trying to make certain that we get out there is the fact that there are products that do come off the market as you do certain things and as you look at where they're kind of fitting in, in terms of their health and safety.

I guess one of the things that you mentioned is that there are reasons why products, when they're retested, come off the market. I'm wondering: what's the number of products that are currently registered in Canada, and how would that compare to 15 years ago? How many of those products are falling off the table, either because they don't choose to or they don't need health standards?

L. Hanson: In terms of some of the numbers, I can try and give you a ballpark. In the re-evaluation program in terms of products, actives that were registered themselves before 1995, there were about 400 products, active ingredients.

[0920]

Those are active ingredients just in the domestic category alone, and these would be the end-use products, I believe there are approximately 1,700 different products that are available domestically that have a label which indicates they may be used in and around the home.

As you mentioned, in the re-evaluation process when a product is re-evaluated, in some cases the registrant no longer wants to support a particular registration or supply the particular data which may be required at this time, so that use may disappear. They of course may also decide that it's an important product for them in the marketplace. They will develop the other studies which are required for it to meet our guidelines of today in order to continue registration. We would then look at those studies and make any changes necessary to the labels that would be required.

We have made changes to labels to both drop particular uses of products and, also, in some cases to maybe increase personal protective equipment for the user. I would say that applies, certainly in most cases, just to the commercial types of products — products that farmers or certified users might be using — versus what you're talking about, in this case homeowners, which are domestic products.

As I mentioned earlier, it's one of the criteria to be a domestic product that we cannot have a requirement for that person to suit up wearing gloves, goggles, a respirator, that sort of thing. We can't have something of that nature, in terms of its toxicity, in the domestic marketplace. This is why, like in the certified area, we have training programs, which are run by the province, for people to be certified to know how to use those products.

B. Stewart: Of the 1,700 products that are out there, obviously, the active ingredients are part of that and may be different formulations. That includes things that would be organic products, like you mentioned — diatomaceous earth, soaps. They have to also be registered, and if they are to be sold under the use of being claimed to be an insecticide or have some other benefit, they have to go through the same process. Is that correct?

L. Hanson: Right. Just to clarify, we don't have a categorization referred to as organic, but we certainly have…. We refer to them as non-conventionals. These are products which are not the traditional types of chemistries, which I've talked about, whether it be an insecticide or herbicide, but things that you've mentioned, such as

diatomaceous earth, some of the soaps, acetic acid — vinegar — those sorts of things.

We have put in place a program, or a guideline, for registration of those products. When you hear me talk about registration, again, that implies or that means that those products, yes, have to come through system and meet the data requirements that have been determined for that product.

Now, in some of those cases, certainly the data requirements may be much less for a product that you're talking about — let's say, for example, an oil product or a soap product. We may not require the same extent of studies, because we have fairly good knowledge that that product is already in the marketplace for other uses and that it doesn't present a particular risk to human health or the environment.

So when the registrant comes to us, we call it a presubmission process. They can meet with our agency, with our scientists and have a determination up front what sorts of studies are going to be required for that product then to be registered. At the end of the day, yes, it's going to receive a pest control product registration number, which is indicative that it has gone through the process and now carries a legal label in Canada.

B. Stewart: Okay. Just in terms of safety, you talked about the no-effect number times a hundred, which is the safety factor, and it can be up to ten times that, which is a thousand.

What would 2, 4-D, which is the active ingredient in Killex and all these lawn products…? What would it likely be in a domestic formulation?

L. Hanson: In a domestic formulation, and of course I don't have that study in front of me, I would think the

majority of it was probably done on the basis of a 100-fold safety factor, based on the types of studies which exist with that chemistry. Certainly, it is one of the most studied chemicals out there in terms of a pesticide, in terms of a herbicide.

[0925]

Yes, it is an ingredient in Killex. It underwent an extensive re-evaluation that went over a number of years and was completed in 2008-2009. Without looking at the exact margins of exposure that we used in the calculations themselves…. I don't have those numbers in front me. I would think just based on, certainly, the LD50s, in most cases the general tox profile of that chemical is more towards the lower end of the scale.

B. Stewart: I've got lots of questions, but I'll finish there. Thanks.

B. Bennett (Chair): Okay. I just want to deke in here and follow up with a quick question. In terms of the application of 100-fold or 1,000-fold or whatever number you use, I'm trying to understand how that relates to this whole incremental process that Health Canada goes through to analyze toxicity and exposure and this sort of thing.

On one of your slides you talk about, under exposure levels and risks, how the potential exposure is overestimated for protection. So do you apply that kind of 100-time ratio in that situation as well?

L. Hanson: Yes, and it's important to keep those two things separate. So on the hazard side of the equation, the toxicity profile, where I talked about the no-observable-effect level, found the most sensitive species in an animal and applied, at a minimum, a 100-fold safety factor to that. That gives us a particular number. We are then comparing that number to actual exposure data that we have.

When a product is used, whether it be used by a homeowner in their back yard or whether it's being used by a farmer applying it to their crops, then eventually that product may be leaving some residue on the food. We have to have precise knowledge of what the potential exposure is. There are no additional factors being applied to the exposure. We have to have an exact number.

We want to know exactly how much a person would be exposed to when that product is being used. So then when we are actually comparing that to the number which we've determined with the 100-fold, it has to be able to pass that test.

B. Bennett (Chair): But in the case of a child on a lawn, you've looked at typically what a child would do on a lawn — you know, hands to mouth and a blade of grass and soil and all that sort of thing. You've already made sure that the toxicity is 100 times less than perhaps what it might need to be. But in terms of the exposure, how do you judge what exposure that child might get?

L. Hanson: Again, it comes to that particular study. We have actual data from a child actually going through those activities — either hand to mouth, picking a blade of grass and consuming it — and determining what the potential is, if there's a particular residue in that situation, for how much that infant might pick up.

Then how does that number compare to the toxicity profile that we've conducted on the other side of the equation? There has to be at least a 100-fold difference between those numbers. In most cases, we'll have a many-thousands-fold difference between what we're seeing on the exposure side and the actual calculation of the toxicity profile.

B. Bennett (Chair): Okay. Rob and Scott, do you guys want to flip a coin? There may be time for both of you. Scott, why don't you go ahead?

S. Fraser: Sure. I'll be quick. I guess I have a question too. If we have further questions — Ben has touched on this — can we forward them to Lindsay? Is that maybe something the committee can do?

L. Hanson: Certainly. Yes, any questions you have.

S. Fraser: Your issues raise a lot of questions. Ben touched on 2,4-D. That's been banned in, I think, Quebec — right? Probably Ontario too. So you have, like, 20 million people in the country represented in various jurisdictions that are banning products that have been deemed safe for use by the PMRA. I'd like the number of how many have been deregistered or been moved out.

We know that there are the heptachlors, the toxaphenes, the DDTs. There's quite a number of them that I'm aware of, but there's probably a lot more. I'd like to know that. As science goes on and medical science goes on and we're seeing great increases in things like autism, there are types of cancers happening, there are childhood leukemias and that, which haven't been specifically linked to chemicals maybe, but things are unfolding.

[0930]

I mean, with the precautionary principle…. That's the knowledge that many things that have been deemed safe have been deregistered because science has proven otherwise. And you have children that are predisposed to certain conditions. I don't know the level of science that you could be engaged in that would be looking right at those issues, because science is unfolding so quickly, and medical science too. It may be beyond the scope of your particular organization.

Again, I'm trying to figure out how to use the precautionary principle when it comes to cosmetic pesticides used for aesthetic reasons. I'm trying to get a handle on

that. Other jurisdictions have made some pretty drastic moves, by some estimates, in the interests of the precautionary principle and of health for children and families.

I don't know the question there, but how do we, as a body, use the precautionary principle when we see this happening and we know that things that have been deemed safe before are now no longer deemed safe? The risk for children, mostly for children, is what I'm talking about here.

L. Hanson: Okay, I'll try to put some boundaries on what you're asking. First of all, yes, certainly other provinces have made some decisions with respect to placing other conditions on use of particular products which are registered by the PMRA. As I pointed out on one of my slides, certainly they have that authority. Provinces do have that authority to place those additional conditions on use.

I think what I tried to emphasize in all of this is the rigour of the program that we use to register a product in Canada. In the particular case that you're talking about, with the particular product that was used a lot by homeowners, in 2,4-D, it was an extensive re-evaluation process that that chemical went through. Certainly, we also…. If we compare our results of that re-evaluation program with other countries such as the U.S., Australia and other countries in the European Union, we've all come to fairly similar conclusions with respect to that product.

Yes, at the end of the day we have a system that, we think, does build a lot of precaution into the process. I talked about the use of the animal studies and looking at no-effect levels on the most sensitive species; applying the safety factor to that assessment; having a good idea, a fairly conservative estimate, of what the actual exposure is, an actual overestimation of what the potential exposure is for an individual.

I think at the end of the day, yes, we have to be comfortable in making a risk assessment decision on a particular chemical and on whether or not it's safe to use. Again, it always goes back to the label. Is it safe to use according to label? That is the basis for our evaluation process.

I think, overall, as I've tried to emphasize, it's a rigorous program that we use in Canada to register those products. But at the end of the day, certainly, provinces and some jurisdictions have made the decision to place other conditions on the use.

We have to use what is referred to as a science-based process. That is legislated under the Pest Control Products Act — that it is a science-based risk assessment decision. If you pick up any registration decision off our website for any product, you're going to see reams of data, reams of numbers, reams of calculations that help us or allow us to make a determination of whether, when that product is used according to label, there is reasonable certainty that no harm will come to that individual or to the environment when that product is used according to directions.

That is really kind of the legal basis that we have. It's enshrined in the Pest Control Products Act that it is science-based. Depending on the jurisdiction, you may find that decision differs from province to province in terms of what they need in order to make, maybe, a decision on whether a product is going to have other conditions for use there or not.

B. Bennett (Chair): Scott, I don't know if you're aware, but in June the Quebec government actually acknowledged publicly that 2,4-D doesn't present a threat to people or the natural environment. I'm not sure if you were aware of that.

S. Fraser: No, I never heard that.

[0935]

R. Fleming (Deputy Chair): I think it's also worth pointing out that that statement by Quebec was made in the context of legal action by a large chemical company that was suing the government of Quebec and that Quebec has also maintained legislation to ban some of the cosmetic pesticides we've been talking about.

I wanted to ask Mr. Hanson just about the use of a couple of terms here that my colleague was just getting into: precaution versus acceptable risk.

It's a fair question because I think that as you've admitted here and as it's been discussed elsewhere, Health Canada doesn't always get it right by delisting, it's been suggested to me, up to 20 percent of the products that have been available on the market and outright banning certain chemical compounds now that were previously freely used by Canadians. That's an admission that Health Canada has probably erred on the wrong side of exposure to Canadians and has pulled those products.

But the terms are important. You've used, in one of your slides, the phrase that the approach of your agency is precautionary. I just wanted to be precise about that, because one of the things that's very interesting for us as committee members is to look at other jurisdictions and to look at the Supreme Court's opinion on this matter.

The Supreme Court of Canada decision, which upheld the right of municipalities and provinces to ban what have been defined as cosmetic pesticides, was based on what's called the precautionary principle, which said that public policy-makers and legislators can ban these products, even in the absence of a "science-based" conclusion, which your agency is in the business of providing. I want to make that clear.

You said your approach is precautionary, but I don't want that to be confused with the use of the precautionary principle, which now I think six or seven provinces are using, basically, to make pesticide regulation and legislation. The more accurate term is that you are into defining what

acceptable risk is. Is that fair to say? Acceptable risk is the operating framework of your agency, not the precautionary principle?

L. Hanson: I think what I tried to describe… You know, certainly, the "acceptable risk" phrase is used throughout our publications. I tried to describe more the overall process as being precautionary, in that I tried to give you a sense today of the amount of science or the amount of data that is required for a product to be registered in Canada.

I think if you look at the precautionary principle, there is the statement with respect to: in the absence of particular studies or in the absence of some science or where there are particularly deleterious effects and that sort of thing.

Certainly, what we're trying to elucidate by having the requirements we do for registering a product in Canada is to give the most complete picture we can have with respect to a particular chemical.

I think, as well, the knowledge that the process we use is certainly on par with or better than other countries in terms of how products are registered by the EPA or some of the European Union countries. It is a scientifically rigorous process that we do use.

I wasn't referring specifically to the precautionary principle. I was talking about it being a precautionary approach, some of the things that I talked about in the slides with respect to the 100-fold safety factor as being a minimum — the conservative overestimation, typically — of exposure.

We have to have the ability to make a risk assessment decision, at the end of the day, and scientists certainly have to be comfortable with making that decision on whether that product is deemed acceptable for use or not.

B. Bennett (Chair): Mr. Hanson, you must be aware of Dr. Solomon, the chair of the board of directors for the Canadian Network of Toxicology Centres.

L. Hanson: Yes.

B. Bennett (Chair): There'd be some interaction between Health Canada and University of Guelph, I would think. That's where he's based — or is he?

L. Hanson: I believe he is based at the University of Guelph with the Canadian Network of Toxicology Centres. I don't believe there's any direct interaction with Health Canada — not that I know of.

[0940]

B. Bennett (Chair): Okay. Well, just for the members' benefit, I think what Rob Fleming has introduced as a topic for our consideration is an important one. I know that Dr. Solomon has a point of view on the use of the precautionary principle for pesticide use.

When somebody comes in from the University of Guelph, we can, I think, pursue this line of questioning, whether it's Dr. Solomon or Dr. Ritter or whoever it is that we have come in.

I think we're pretty much out of time. We really appreciate you coming all this way to meet with us today, a fascinating discussion.

L. Hanson: That's not a problem. That's certainly why the agency is there: to be able to respond to these types of inquiries and, as you said, to be able to get this information available to Canadians and, basically, to help you make your decisions.

B. Bennett (Chair): Thank you so much. We're going to take you up on some follow-up as well. I'm sure. Committee members will have some further questions for you.

L. Hanson: Certainly. Feel free to contact me or through the 1-800 number or through the website. As I said, we have about 350 scientists in Ottawa whose job it is to look at these products and to make those decisions. All told, there are probably about 500 people with the agency. So we have a lot of people that will, hopefully, be able to find answers to your questions.

B. Bennett (Chair): Okay. Thank you very much.

Members, I'm going to call a very quick recess. We'll try and get this done in less than five minutes. We're going to go in camera and discuss our business plan and our travel schedule.

So I'm going to ask members of the public to depart at this point, and we'll reconvene in five minutes or less.

The committee recessed from 9:42 a.m. to 9:46 a.m.

[B. Bennett in the chair.]

Committee Business Plan

B. Bennett (Chair): Members, we can reconvene at this point. I'm going to ask the Deputy Chair to help me ensure that we go over the things that we need to go over. We wanted to make sure that you had seen the business plan. That's this document that's got "For approval by committee members." You have seen the first three pages before. Actually, you've seen the first, I think, five pages before.

Before I go any further, I need a motion to go in camera.

J. Slater: So moved.

The committee continued in camera at 9:47 a.m.

The committee adjourned at 10:02 a.m.

[Return to: Committee Home Page]

Hansard Services publishes transcripts both in print and on the Internet.
Chamber debates are broadcast on television and webcast on the Internet.
Question Period podcasts are available on the Internet.