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**EVIDENCE**

**Thursday, May 9, 2013**

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**Chair**

**Mr. Merv Tweed**



## Standing Committee on Agriculture and Agri-Food

Thursday, May 9, 2013

•(1100)

[English]

**The Chair (Mr. Merv Tweed (Brandon—Souris, CPC)):** Good morning, everyone. Welcome to meeting number 80 of the Standing Committee on Agriculture and Agri-Food. In our orders of day pursuant to Standing Order 108(2), we are continuing with our study of losses in honeybee colonies.

Joining us today for the first hour, we have: from the Canadian Honey Council, Rod Scarlett, executive director; from Day of the Honey Bee, Clinton Ekdahl, founder; and from Munro Honey and Munro's Meadery, Davis Bryans, president.

Rod, I'll ask you to start. Then we'll just move down the row, and then go to questions from our members.

Please begin. Welcome.

**Mr. Rod Scarlett (Executive Director, Canadian Honey Council):** Thank you, Mr. Chairman.

Thank you, committee members, for the invitation to address you today. As you are well aware, a couple of days ago you heard from the Canadian Honey Council's bee incident committee chair, Kevin Nixon, who outlined all the recommendations that the Canadian Honey Council has put forward in regard to pesticide incidents.

I'm going to try to put that presentation aside a little bit and give you a little bit of a different picture. I want to begin with the latest Statistics Canada report indicating that there were about 706,400 colonies in Canada in 2012. That's up by 10.7% from approximately 637,000 in 2011. The recent numbers from the Canadian Association of Professional Apiarists pegged the number closer to about 645,000 at the end of spring 2012. But despite these variations in numbers, and contrary to many other countries, this number has been on the rise for the past seven years.

I'll use the CAPA numbers. Of the 645,000 colonies in Canada, 486,000 of them, or over 75%, are located west of the Ontario-Manitoba border. According to the CAPA report, which they put out last year, for overwintering losses from 2011 and 2012, the average level for honeybee colonies across Canada was 15.3%.

This was the lowest wintering loss for Canada in the past six years. Every province in Canada had lower winter losses last year. It's important to note for this committee that although cursory information can be given for this year, the national survey committee of CAPA does not anticipate having verifiable overwintering numbers available until the end of July.

As the committee members have heard, honeybee losses are becoming an extremely important issue, regionally, provincially, nationally, and internationally, particularly as the value of pollination becomes better understood by the public. Weather, varroa control, nosema, environmental factors, and pesticides all play a role in these losses. It's important to note that not all beekeepers agree on the impacts that each of these components plays in losses.

The events that occurred in Ontario in 2012 have spurred the Ontario Beekeepers' Association to a course of action that is calling on crop producers to actively engage in integrated pest management strategies to protect pollinators.

More recently, the OBA has called for the suspension of all neonicotinoid pesticides, starting in the 2014 planting season. In addition, they're asking that beekeepers be compensated by the government for losses to crops, bees, and equipment due to deaths, chronic disease, or toxic residues in equipment caused by the neonicotinoid pesticide products from 2012 forward. This can be seen right on their website.

But they are not alone in their request. Earlier this week, the Fédération des apiculteurs du Québec adopted a resolution also asking for a ban on neonicotinoids.

To date, however, the CHC, the Canadian Honey Council, has been supportive of the joint efforts of the PMRA and EPA in the re-evaluation of the neonics and strongly believes that the decisions need to be based on science, not on public opinion or perception. Of course, one of the difficulties we're experiencing is that there are different interpretations of science, and that certainly muddies the waters for the Canadian Honey Council.

I can't say exactly what impact the resolutions from the two provincial associations will have on beekeeping overall in Canada, particularly because in western Canada the crop production is quite a bit different, and that's where the majority of the honeybees are situated. I would imagine that each provincial association will now be asked to comment on those two resolutions.

•(1105)

As it stands today, the Canadian Honey Council is working cooperatively with PMRA, CropLife Canada, and crop producer associations like the Grain Growers of Canada, and the Grain Farmers of Ontario, to mitigate risks and develop solutions that benefit beekeepers specifically, as well as those involved in agriculture generally.

I do want to add that the CHC has had at least two workshops with CropLife Canada and with the involvement of PMRA, equipment manufacturers, and producers associations. We are now looking at trying to find solutions as a result of those workshops. We have more planned in the future.

While I know the committee is focused on Ontario and Quebec, and particularly with the pesticide incident in 2012, honeybee losses still occur as a result of other factors. Many of these factors require significant research, and as the public sector has withdrawn somewhat from this type of research, the private sector has jumped in and filled the gap.

In smaller agricultural sectors like beekeeping, producers aren't able to fund primary research themselves. So companies that are involved in beekeeping shoulder that financial burden. They do a really good job, an admirable job. However, the line between perception and reality often gets blurred, and there comes an underlying belief that all research is skewed. Rightly or wrongly, however that's portrayed, it becomes increasingly important that our regulatory system has the neutrality to be effective in evaluating research.

While this increasing demand comes with increasing responsibility, and no doubt increasing fiscal implications, I hope this will be addressed.

Bee health, genetics, environmental diversity, parasites, disease, pesticides, and nutrition are among all the things that contribute to bee losses. These are areas of research that need considerable attention, as the future of pollinators may be in peril if they're not adequately addressed.

• (1110)

**The Chair:** Thank you.

Mr. Ekdahl, please.

Welcome.

**Mr. Clinton Ekdahl (Founder, Day of the Honey Bee):** Good afternoon, committee members. I am honoured that you allowed me to be here, considering that what I do not know about honeybees would likely fill two large warehouses. I've never claimed to be an apiary expert. However, what I do know about them concerns me greatly, and I do not need to be an apiarist to understand where our honeybee crisis will take us.

Consistently, for over a decade, Canada has lost vast numbers of hives. In some areas, losses are as high as 90%, though the average seems to be around 30%. It's a constant wonder to me why more people are not taking to the streets in a panic. If a third of all cattle were to mysteriously disappear from pastures, I have no doubt that the public outcry would generate much heated government debate, public discussion, and affirmative action.

Furthermore, no other livestock is a keystone species like the honeybee. Most of our agricultural products are reliant on the honeybee for existence, and I emphatically suggest that the honeybee is the most important domesticated animal on the planet. Yet, committee members, we are losing honeybees without fully understanding why, at rates that are both unsustainable and

unacceptable. My fear is that honeybees will be weakened to a point where they may never recover.

For this reason, I created the national day of the honeybee campaign in 2009. From its inception, I knew that creating a day in recognition of honeybees would be a necessary step to instill awareness of this crisis in the public.

Indeed, over a quarter of this nation agrees with me. Within the last four years, proclamations dedicating May 29 as the Day of the Honey Bee have been received from abundant jurisdictions. The stack of original proclamations would indicate that public concern for the honeybee is growing. They also indicate that Canadians want to know what their government is doing to safeguard the honeybee, beekeepers, agriculture, food security, the economy, and the environment.

There can be no question that all of these concerns are connected. While taking steps to safeguard the honeybee is important, even more important is finding out exactly why they need protection in the first place. As I have mentioned, I'm not an expert and I do not have the answers. However, as the founder of the Day of the Honey Bee and representing each of the nearly 250 governmental proclamations that support the establishment of a national day of the honeybee, I have many questions that I think the public deserves an answer to.

For example, what effect do neonicotinoid-based pesticides and other agricultural pesticides have on honeybees? What effect does monoculture and field size have on them, including loss of habitat and forage variety and quantity? What effect does pollination services of beekeepers have on honeybees, particularly regarding translocation of pathogens and diseases through these pollination services? What effect does the lack of genetic diversity have on them in reference to the common practice of queen reproduction? Finally, how does the honeybee suffer from negative public attitude?

It cannot be said that on a rudimentary level the answer to each of these questions is that, yes, these factors are harming them. It is just a fact. Yet, these factors are not the only stressors on the honeybee. They are bombarded by constant risks. If there are pesticides killing honeybees, it would seem logical that these poisons be banned until it can be proven that they are not harmful. It seems reasonable that if monoculture is determined to be a major risk factor contributing to poor diet, perhaps fields can be smaller or interlaced with natural fields, providing a healthier and more varied diet for the honeybee.

It seems practical that, if pollination services are contributing to the stress and contamination of healthy hives, some type of option should be discovered that would make it safer. If the genetic strength and vitality of the honeybee is being compromised because of artificial and mechanized reproductive practices, more honeybees should be allowed to mate and reproduce as nature intended, in order to allow natural selection and strengthen the genetic variation that is needed. If the public is ignorant about the importance of honeybees, and their attitudes toward this pollinator is coloured with fear of getting stung and other ill-informed views, the public should be educated and their flawed views corrected.

•(1115)

A national day of the honeybee can be a focal point around which all the risk factors that are harming them can be investigated and addressed, the first being public education and awareness.

As I mentioned in my brief, I was recently asked by my five-year old niece why I'm pushing for all levels of government in Canada to proclaim May 29 as the day of the honeybee. It is because honeybees are dying. They are disappearing from hives all over the world. My niece asked, and then it struck me that she had no idea why honeybees are important. Most people don't know.

The day of the honeybee is not merely about honeybees nor is it merely about beekeepers, honey production, or agriculture, or the environment, or the economy. The day of the honeybee is about my niece and our future that she represents.

Yes, national day of the honeybee is about honeybees, but it also about all pollinators: insects, birds, and mammals. Honeybees are like the canary in the coal mine that warns of environmental danger. Therefore this day is also about the environment and the stability and vitality that pollinators ensure. Certainly this day is also about agriculture because so much of what we eat is made possible through their efforts, yet they also bring a warning of the risks associated with the mechanization of agriculture and the negative impact that monoculture, and particularly pesticides, have.

Furthermore, while I will not suggest that honeybees are the only pillar to a thriving economy in Canada, I would suggest that their collapse would trigger a larger economic fall. Food is a fundamental and basic need for all people regardless of language, gender, age, ancestry, skin colour, sexuality, economic status, affiliation, or ability. If the honeybee continues to die and food security is jeopardized, the future of all people will be jeopardized as well.

When I explained to my niece that honeybees are disappearing, she began to cry and said she'd have to tell her friends at day care because she didn't want them to go hungry. A five-year-old has enough sense to understand that if there's a problem, the first thing to do is to tell others about it. That is why a national day of the honeybee is so critical.

The numerous applications for this one day are irrefutable. This day is about creating a focal point around which great progress can be made. Beekeepers can use this day to promote their honey and related products and services. Farmers' markets can use this day to stimulate demand for locally grown organic produce. The government can use this day to highlight the steps it is taking to safeguard honeybees. Environmentalists can use this day to advance alternative agricultural practices to protect pollinators in the environment. Jurisdictions can use this day to create public events such as the Smoky River Regional Economic Development's BUZZ on the Street in Alberta, and the Day of the Honey Bee film festival that took place at the Roxy Theatre in Saskatoon.

The day of the honeybee can be used by agencies such as the Canadian Honey Council to create needed funding for colony collapse disorder research. If given official federal endorsement, this day has limitless potential. Just imagine what could come of this day. Imagine the opportunity for food banks to generate food for the needy.

No, committee members, I am not an expert on honeybees, but what I do know has me fearing a future without them. That is why I ask this committee to call upon the federal government to follow suit with a quarter of the Canadian population and join that unprecedented chorus of voices that are in support of creating a new national day of the honeybee in Canada this May 29.

Thank you.

•(1120)

**The Chair:** Thank you.

Mr. Bryans, welcome.

**Mr. Davis Bryans (President, Munro Honey and Munro's Meadery):** Thank you for inviting me here.

I'm between Sarnia and London, and we run about 3,000 hives. Last year 1,000 of our hives were hit with pesticide sprays. We got them tested and of the samples tested only one showed that they had non-detectable clothianidin. When this product comes out, it's supposed to be "parts per billion", and in my case the report came out in "parts per million", so it's quite high.

The reason we're asking Ontario to get this product banned is because it is so water soluble. It is leaching everywhere and the bees are sucking up this water off the top of the soil. It accumulates in the soil. It accumulates in the hives. It accumulates in water. It doesn't break down. This product, this neonics, they say it lasts 365 days, but then we're hearing it will last up to seven years. So what's the truth? We don't even know.

It expresses itself in all parts of the plant, which includes the flower, the nectar, the branches, and the fruit or the vegetable. My wife doesn't even want to eat a lot of things anymore because she knows it's inside the plant. It's not on the outside where you can wash it off. It accumulates inside the fruit.

I'm sorry if I'm jumping around on this because I just point-formed this in the last couple of days.

For the bees, it makes every piece of food available to them—and water—toxic. This product is used on virtually every crop in North America. It's been banned in Europe. If you put it on corn this year and you plant clover the next year, for 365 days it's going to express itself in the clover the next year. It's going to be hard on these bees. With trees that grow close to fields and the root systems go in there, this is sucked up into the leaves of the trees. Linden trees, maple trees, they're all toxic. It's going into those too. They get pollinated every year.

This product was conditionally registered. It's not even fully registered. It alters the immune system in the bees, and it affects their brains. We wonder why they put it on everything? Why don't they use an IPM, or integrated pest management, if they have to use it? I think we're past that. I think we need to get this off the product.

In the United States this year, their losses are up 78% from last year, so this product is really causing problems. We're getting calls every day for more bees, more bees. We do pollination. We pollinate blueberries, and there just aren't enough bees to pollinate. Almond groves in California, they're not getting pollinated. This is a North American problem.

Our PMRA should be shutting this stuff down. A few years ago we had problems with Furadan, but it was a spot here and spot there and you didn't notice it. They told us, we have Bt corn and it's going to eliminate all your problems. You don't have to worry about spraying anymore. Where's Bt corn? It's gone. They're treating every piece of seed out there. I talked to a professional at Purdue University and he tells me that he doesn't see any significance in using these insecticides on this corn. The fungicides, yes, but as for the pesticide, he's doing testing on areas that are highly infested and sees a negligible difference in the yield from the treated seed to the untreated seed with the insecticide.

Krupke was one of the first ones to talk about this poison. We've had these problems for the last five or six years. It's not just the last year that we had the problem. We had the problem before, and it was more hit and miss. You say, well, it's only one yard.

● (1125)

Last year there were 30 different locations, and this year it's already started to happen. They have these new BMPs that somebody never consulted with Ontario beekeepers about, and they're not working. We're already getting results. I was getting phone calls on the way here that the bees are lost. One is involved in a study, and before they could put the traps on, it wiped out the flying bees. They're doing an investigation on it today.

**Mr. Larry Miller (Bruce—Grey—Owen Sound, CPC):** Mr. Chair, can I just have a clarification on what a BMP is?

**Mr. Davis Bryans:** It means best management practices.

**Mr. Larry Miller:** Thank you.

**Mr. Davis Bryans:** So all in all, to really get a quick answer on this and without doing a whole lot of scientific stuff, if you just tested our water, our soil, our potatoes, and our high-fructose corn syrup it would tell you what's going on out there.

Thank you very much.

**The Chair:** Thank you.

Ms. Brosseau.

**Ms. Ruth Ellen Brosseau (Berthier—Maskinongé, NDP):** Thank you, Chair.

I'd like to thank our witnesses.

This is of great concern to all Canadians. I remember our meeting last year, and moving forward to our meeting Monday, it's clear that action needs to be taken and that what we do moving forward is very important.

I can completely agree. We've heard testimony that the bee losses last year were due to a perfect storm. We've been using these pesticides in Canada since the nineties and what happened in Ontario

was a combination of heat and a few reasons, and this is why we have these significant bee losses.

Do you think the best management practices that we have here by Health Canada are something that would help moving forward, or is this not enough?

**The Chair:** Mr. Bryans.

**Mr. Davis Bryans:** I don't think it's enough.

First of all, up until last year, a lot of farmers didn't even realize it was a pesticide that was on it. I drove by a field this year, and a guy's planting corn. It's not an air seeder, it's a typical planter, and he has his two kids standing on the gravity box looking in it. I think it's a health issue. We're putting our farmers at risk, and they're just sloughing it off. I'm here not just for bees. I'm here for alternate pollinators. I'm here for my kids and my grandkids.

**Ms. Ruth Ellen Brosseau:** Mr. Scarlett.

**Mr. Rod Scarlett:** To begin with, it's only fair to say that a lot of the recommendations that Health Canada brought forward on the BMPs this spring were as a result of recommendations that our committee brought forward to them. They have to be congratulated, I think, for listening to the industry as a whole and adopting a lot of those changes.

Are they perfect? We don't really know yet. We've adopted what we could to address things that occurred in 2012. We'll find out if the BMPs have had an impact for 2013. Yes, there are some purported incidents already, but again, I think we have to put it in perspective. We have to wait and see. As I say, I think PMRA needs to be congratulated for accepting the recommendations from a committee that consulted with beekeepers across Canada and with farmers across Canada to put forward those practices.

**Ms. Ruth Ellen Brosseau:** I have a question about science, because we hear all the time about sound science. It seems that science is just kind of like a unicorn, this mythical creature. What do you believe? Is it debatable?

As you know, the European commission has banned—I can't ever pronounce it properly—this pesticide. Their decision is based on science—that's what they say, science. Quebec moved a resolution, I think it was May 1, and we brought it up on Monday, to ban until there's more investigation and science. This is a huge food security health issue. I was just wondering if you can comment on banning. Do you think that was the right decision?

**Mr. Rod Scarlett:** It may have been the right decision for Europe. I'll give you an example. It's not quite the same, but based on science, Europe banned Canadian honey export because of GMOs. Well, we lost our third-biggest export nation, Germany, because of a European decision based on science. I'm not saying their science is wrong or right. It's a little bit different.

One of the things that the CHC has been asking is for our regulatory agency, which we entrust with coming forward with scientific-based decisions, is the one that should determine. It's nice for me to read articles and say I agree with this and I agree with that, but I don't like this and I don't like that. I'm not a scientist. I don't think many beekeepers are scientists, but there are some, so we have to, in our opinion, rely on those who have the knowledge to determine what is the best science-based evidence.

•(1130)

**Ms. Ruth Ellen Brosseau:** Mr. Bryans, I know you mentioned a gentleman from Guelph, I think, who was doing the study on—

**Mr. Davis Bryans:** Mr. Krupke, from Purdue.

**Ms. Ruth Ellen Brosseau:** Purdue, Krupke...?

How far along is he in this report?

**Mr. Davis Bryans:** I don't know when that would be.

**Ms. Ruth Ellen Brosseau:** Okay, we'll have to follow up. I find that very interesting and I think it would be important to our study.

**The Chair:** I have to stop you there, I'm sorry.

Mr. Lemieux.

**Mr. Pierre Lemieux (Glengarry—Prescott—Russell, CPC):** Thank you, Chair.

Thank you to our witnesses for being here today and for participating in this study.

The committee realizes the importance of honeybees, which is why we are continuing our study on this. We had some witnesses last year, but we want to follow up on this, which is why we're having more meetings right now. Of course the reason we're studying the honeybee is because the humble bee plays such an important role within agriculture, not just producing honey but as we've been discussing, through pollination.

What I would like to do is first address my remarks to Clinton. You spoke very passionately about the honeybee and the national day of the honeybee. What I would like you to know is that every member at this committee table supports that initiative. We have in the past as well, and we have publicly done so.

What may not be so well known, though, and what I would like to explain is that when it comes to recognizing a national day of the honeybee, or of any other type of worthwhile endeavour, this has to be advanced by a member of Parliament in the House as a private member's bill. This is simply a well-accepted protocol. It's understood by all parties. All MPs understand that this is the protocol that is done to recognize a national day.

Just to give you an example, there was a national day to recognize philanthropists. I think that was advanced by a Liberal MP. There is a national day to recognize the works of John Paul II that's being advanced by another MP. These types of initiatives, although they're very worthwhile, need to be advanced by an MP using their private member's bill as an opportunity to do so.

So I just wanted to clarify that because that's not always well known.

**Mr. Clinton Ekdahl:** I do understand that, and as far as I understand, there is a motion in play.

**Mr. Pierre Lemieux:** The committee can certainly do something here in committee, but to do something in the House and to actually have a formal national day of the honeybee at a national level, that will take an individual MP advancing such a cause as part of their private member's bill when their opportunity comes up.

**Mr. Clinton Ekdahl:** I understand that the federal government can also do it without—

**Mr. Pierre Lemieux:** That's what I'm saying. I'm trying to dispel that myth.

The accepted protocol among all members of Parliament is that for a national day to be recognized nationally, a member of Parliament from whatever party has to say, "This is my private member's bill. I am moving forward with this private member's bill and I'm asking the House to debate it and to eventually vote on it." So there is a well-defined process and it's the private member's bill route that is used to put in place a national day.

**Mr. Clinton Ekdahl:** Okay.

**Mr. Pierre Lemieux:** It's not just the government saying that it wants it, and it is done. That's not the way Parliament works and as I said, there is a well-accepted protocol among all the different MPs and the different parties that this is the way it is done. An MP advances a specific private member's bill.

**Mr. Clinton Ekdahl:** Yes.

**Mr. Pierre Lemieux:** Anyway, let me just move on to one other thing.

We had some discussion here about what it is that is causing the loss of bees. I think I heard Rod say that there are many factors at play, and I think I heard you say that as well, Clinton, meaning that it's a complicated, complex matter in terms of what is causing bee losses. Although there might be many contributing factors, it doesn't necessarily... It's very hard to pinpoint one and say that's the factor and if only we could resolve that factor we would not suffer significant bee loss any more.

We had the Grain Farmers of Ontario here yesterday. In the public, just given the media articles that have been written, it's possible for the public to ask why the farmers just don't use it. I think you might have said that, Davis, in your comments, that we should just ban it for now until we know more.

We were asking the grain farmers, first of all, if they have a vested interest in a healthy bee population and they said that absolutely, farmers care about bees, they need bees, and they want a healthy bee population. Then I asked the question: What would the impact be on farmers if there were a ban? He said that there would be a 10% crop loss that could, on the average farm for the average crop farmer, result in a \$50,000 loss to that farmer.

I want to ask for your input on that because there is a very real impact, and that's why it has to be based on sound science. Ruth Ellen was perhaps making some negative comments about sound science. But if a decision is not made on sound science, what is it being made on?

If we just start guessing at it, it has a very real impact perhaps on bee farmers, on crop farmers, on stakeholders. So we can't just guess and say we think it's this and we're going to do it. Let the penalties be what they might be. No, it has to be based on sound science.

Rod, could I ask you to comment on that, please?

•(1135)

**Mr. Rod Scarlett:** I certainly agree on the sound science side, but I also sympathize with beekeepers who have lost bees as a result of pesticide poisonings.

I'm not a scientist, but there seems to be a difference between corn and canola. It could be a variation in regions or soils; I don't know. I'm not sure. I have not heard any expression of concern from beekeepers in western Canada on seed treatments. As I've tried to mention, the majority of the beekeepers and the bees are in western Canada.

That doesn't negate the fact that there seems to be an issue in Ontario and in Quebec. I'm not sure, and that's why we're working with the farmers and those farm organizations. As you say, the impact could be 10%. It could be we now go to foliar sprays in pre-emergence. We don't know what those sprays will be or what the impact on bees will be from those sprays. We'd better know what we're getting into when we develop these plans. That's one of the reasons we have been sitting down and working with CropLife and the farm organizations. It's to try to work out the best path forward that mitigates risk, that benefits beekeepers, and that does this all based on science.

**The Chair:** Thank you.

Go ahead, Mr. Valeriote.

**Mr. Frank Valeriote (Guelph, Lib.):** I too want to thank you all for coming. This is a really serious matter we're dealing with. As I said last Tuesday, I'm quite conflicted about it. We're trying to dig down and look at the best evidence available to us and also distinguish the fact that, candidly, some witnesses have their own interests and their own income at heart. We have to weigh that as well; there's no question.

I put to Maria Trainer from CropLife on Tuesday the possibility that this is a perfect storm, the coming together of the parasitic varroa mite, the viruses, bacteria, poor nutrition, genetics, weather, and pesticides. Given all of those factors coming together last year in this province, it particularly affected our beekeepers here, but it didn't out west, as you noted. It didn't in South America, apparently, where the same pesticides are being used. Everybody is perplexed.

Rod, you're from the Canadian Honey Council. I expect you speak for a number of organizations and a number of people. Could you tell us who you speak for in total? I want a sense, because there's another beekeeper over here on the other side, Davis, who's saying we should put a moratorium on it. I haven't heard you say, unequivocally, that we should put a moratorium on it. What I'm hearing you say is that, if we manage this, adopting best practices, we'll be able to hopefully get it under control, particularly with respect to the issue of pesticides.

Can you tell me who it is you speak for? Do you agree that there should not be a moratorium on it? If it is best practices, how do we ensure that all farmers are using best practices? When I spoke to a beekeeper from out west and asked him if he talks to the farmers nearby, he said not really. Are we talking to one another in Ontario? Are we gauging when we seed and warning our beekeepers that this is what's going to happen and when?

Can you talk about those things?

● (1140)

**Mr. Rod Scarlett:** The Canadian Honey Council is represented by every provincial beekeeping association. That's our membership. In my presentation, I hope I reiterated the fact that both Quebec and

Ontario have indicated they want to ban neonicotinoids. That same resolution has not come from any other province.

In essence, what I'm saying is that internally there is debate within our organization among our members as to whether or not there should be a ban. As it stands right now, the majority of members don't believe that's the route to take. They believe the route we're taking now, as an organization, is the correct one.

**Mr. Frank Valeriote:** This question is for both you and Davis. Are you satisfied that farmers will undertake and properly deploy the recommended best practices to protect the bees in Ontario and Quebec? What will it take for them to do it?

Go ahead, Davis.

**Mr. Davis Bryans:** In the past weeks, farmers are getting ready to plant corn. They say to reduce your risk, you should maybe move your bees. So I go around, and I'm moving all these bees here and there. I stockpile them in another yard so they don't get.... The next day they plant corn right beside this yard. I'm saying, how do I get away from it? It's not a thing where you move. Farmers are calling us and saying, "What should we do?" They don't believe PMRA's recommendations.

They're asking us what they should do and we're saying, "Well, plant at night". But they say "They want us to plant on a windy day". Well, I don't know how you can do that because you can start with no wind at all and 10 minutes later, you have 20-mile-an-hour winds, and these guys are trying to plant 200 or 300 acres. I sympathize with them.

A lot of guys said, "We'd like to buy some seed, the same traits without the insecticide on them". They can't even buy them. They asked the guys, and at first they said, "Yes, we'll give them to you". Then all of a sudden, "No". Bayer says, "We're not letting that get out". They're paying a premium for all that seed. They're paying money that they don't even have to spend.

We have entomologists down in our area who say that treatment is needed in certain areas but not in every field. It's not necessary to be in every field. So yes, there are areas that probably have to have it, but to blanket everything? When you start using chemicals and you use them every year, what's the life of that damn chemical? We do IPM. We check to see if we have problems in our hives. The year before we got hit, we checked for mites, we checked for nosema, we had the tech transfer team come in and do sampling. We knew that we had low mites. We had no tracheal, and the nosema levels were low. All of a sudden the bees were gathering pollen and they're dying right in front of us. The samples came back, and they had clothianidin on them.

There is no doubt in my mind that it is neonics. There's just absolutely no doubt in my mind.

**The Chair:** Thank you.

Mr. Hoback.

**Mr. Randy Hoback (Prince Albert, CPC):** Thank you, Chair.



Thank you, witnesses, for being here this morning, and I really appreciate the passionate testimony we're seeing here today.

You talked about best practices, Mr. Bryans, and I think you'll be glad to hear that there was a new introduction yesterday of new best practices, learning from the experiences of last year and the years before and building on that. That's something that I think is always in the farmer's interest, to learn from experiences in the past and to share that knowledge amongst themselves and move forward.

The national farm-level biosecurity standard was actually put together through partnerships with honeybee, bumblebee, and alfalfa leafcutter bees. So again taking the knowledge that they have today, learning from what they learned last year, Mr. Scarlett, can you give me some idea of how that came together and how you expect that's going to change things?

• (1145)

**Mr. Rod Scarlett:** Certainly.

The bee biosecurity standards were a three-year program working in conjunction with CFIA, ourselves, provincial apiarists, and general beekeepers. It's really a development of an overall best management practices plan to ensure risk mitigation for pests, pathogens, diseases, environmental impacts, pesticides—kind of the full range, as you mentioned. It's a tool for beekeepers to pick and choose those aspects of the plan that they can incorporate into their business to help mitigate those risks.

Just as an aside, I would like to congratulate and thank CFIA for the hard work they did on leading this project to its completion.

**Mr. Randy Hoback:** So in that plan, of course, environmental factors will always be a condition in the wintering rates, for example, of bees, or even the amount of honey, for example, you'll collect throughout the year, depending on how dry, on what flowers are coming out, on how the crops are. Do you take changes in best practices depending on a wet year versus a dry year, or do you take those types of things into consideration when you look at developing these best practices?

**Mr. Rod Scarlett:** Certainly beekeepers will, just the same as crop producers will, on a dry year, do seeding differently. So it is dependent on late spring, early spring, what's flowering, what's not flowering.

**Mr. Randy Hoback:** One thing that I did in my past life was have honeybees. I thought that was a good venture to get into, and I went back into farming and my son worked with me. We worked at it hard for two or three years and we enjoyed it. We never made any money, but we really enjoyed it and learned a lot. I've been stung more than once, that's for sure.

One of the other things I did was I was a chemical applicator. One thing I did when I was applying chemicals, especially pesticides, was to make sure I knew where the bee yards were and that I had a good relationship with the honey producers in the region I'd be spraying in, so that we looked at the best options for application times, for example. In some cases, some of the guys would even go through the process of maybe keeping the hives in during the morning, for example, or in the evenings, just to prevent that.

Do you have that type of program here in Ontario, Mr. Bryans? I know when I took my applicator's licence, there was a section in our

applicator's course about recognizing where the apiaries are and working with the honeybee producers.

**Mr. Davis Bryans:** Are you talking about blocking the bees in for half a day?

**Mr. Randy Hoback:** Not all the time; it depends. There were different management practices that they'd use. I'd leave that up to the owner of the apiary.

**Mr. Davis Bryans:** Yes.

I remember when they were first spraying Furadan, we used burlap, soaked it in water, and put it around the front. But what happened was that the hives overheated, so it killed the hives anyway.

The problem with this product is that it isn't a one-day shot. Once it's there, it's there for the whole season. It's going to keep affecting the bees. Our queens just don't last. Normal queens would last three to four years. If you can get six months out of a queen, you're lucky. On our first round this year, we had a 5% loss, and we thought, "Oh, this is pretty good, a 5% loss." We got rid of most of the loss...like, we melted up the equipment that got hurt last fall.

We go back, though, and another 15% have no queens in them. They survive the winter, and the queens all of a sudden...

**Mr. Randy Hoback:** I guess it comes back to environmental conditions, which also play in there.

We had a producer here on Monday who basically said that when he went through his hives, he had maybe 15% loss. When he came back through, it was a high number, I think around 33%—don't quote me on that—just because winter kept coming into the month of May.

Did you experience the same?

**Mr. Davis Bryans:** But there was nothing to impact, because the bees were inside the hive. They weren't working.

It doesn't matter how long the winter is as long as there's a food store for the bees to stay in there. The only thing you have to worry about is running out of food—and that you have a healthy queen. But all of a sudden the queens are not healthy.

I took some queens last year to an island, and got them mated on the island. The sperm viability in those queens off the island was 75%. All the other queens were 50%. That is 25% less sperm viability in the bees that are open-mated around the agricultural areas.

So there's something going on in the environment.

• (1150)

**The Chair:** Thank you.

Madame Raynault.

[Translation]

**Ms. Francine Raynault (Joliette, NDP):** Thank you, Mr. Chair.

Mr. Bryans, you were here last June and I asked you about tests that may or may not have been conducted...

[English]

**The Chair:** Madame Raynault, may I interrupt you?

I just want to let the witnesses know about the translation. I'm sorry, I should have said that first.

Please continue.

[Translation]

**Ms. Francine Raynault:** Mr. Bryans, when you were here last year, I asked you whether tests had or had not been done on neonicotinoids. At that time, you told me that tests had been done, but not enough of them, because you had to move your hives.

Do you believe that monoculture accelerates this problem by increasing the bees' dependency on a single plant?

[English]

**Mr. Davis Bryans:** Monoculture is a problem. We used to have pasture, and most of the pasture is gone. Corn seems to be the number one crop. We've expanded our areas and we're moving our bees out of the corn areas.

They put it on soybeans, and it doesn't seem to be as high a concentration on soybeans. We kind of moved into an area where they grow more soybeans, but it's not a perfect world there, either, because we're getting some sublethal problems. It's bothering the queens. We're not exactly sure what's going on there.

Our problem is that a lot of the science they talk about is done by the chemical companies. It's not done by independent research. All of the research that shows it's not a problem comes from Bayer or Syngenta. It doesn't come from independents. If you look at the independent research, it will tell you what's going on. That's what happened over in Europe. They started listening to the independents.

When you let the fox guard the henhouse, you have a problem.

[Translation]

**Ms. Francine Raynault:** Exactly.

A number of factors are known to contribute to the loss of bees in Canada. Varroa, a parasitic mite, is one of the factors contributing to the loss of a large number of bees. The parasite is becoming increasingly resistant to pesticides and it has no natural predators. Is research being done into that? For example, we know that, if we put natural predators into greenhouses where tomatoes and cucumbers are grown, we do not have to use pesticides. Do you know if research is being done to find a natural predator?

[English]

**Mr. Davis Bryans:** No. When you're talking about that topic, if you kill the host you kill the predators too. When these farmers are killing the insect, they're killing off the natural hosts to all these insects. The monarch butterfly is gone. The bumblebee is gone. We just don't see them anymore. We used to see bumblebees every day. I've seen one queen bumblebee this year. When my kids were small they would catch bumblebees all the time and put them in a jar. It just doesn't happen anymore.

We had wild leafcutters that would live underneath the lids of our hives. They're non-existent. If it wasn't for the honeybee, there would be no pollinators out there because the natural pollinators are gone. If you have a pest and you take away the pest, then you also take away the thing that goes after that pest. You eliminate it. It's eliminating birds.

I have three birds sitting in my freezer at home waiting for somebody to come. A neighbour down the road has a bird in his freezer. Last year they took two birds, and we still don't have the samples from the birds.

• (1155)

[Translation]

**Ms. Francine Raynault:** Mr. Scarlett, the Fédération des apiculteurs du Québec recorded a 30% drop in production over the last ten years because of the same product.

What research should be done to verify the effects of neonicotinoids? What steps should the government be taking to protect the bees?

We know that, without bees, there will be no more food and, without food, we cannot feed people. There will be nothing left to eat.

[English]

**Mr. Rod Scarlett:** First off, I wasn't aware of the federation's assertion of a 30% decline. They sent the resolution to the office, but they didn't send any background information.

I think the federal government through PMRA is addressing the issue. Maybe it's not to the satisfaction of all; maybe it's too much for others. They're taking a guarded approach, and they have our trust that they are looking at scientific evidence. We have been told that if they find scientific evidence they're comfortable with, they may impose a ban on the product during this re-evaluation process.

Somewhere along the line, we have to have trust in our regulatory system. I believe the CHC has trust in our regulatory system to do the right thing. If the right thing is to ban, then so be it. If it is not, based on science, then it's not. We have to find a process and a practice to mitigate our risks.

**The Chair:** Thank you.

Mr. Payne, you have the last comments.

**Mr. LaVar Payne (Medicine Hat, CPC):** Thank you, Chair, and my thanks to the witnesses for coming today. We've had a number of individuals on this study, and it's important. As I understand it, the neonics have been in place since probably 1995. I believe it was CropLife, Pierre Petelle, who indicated that in western Canada, if it's canolas, the seed is round and it has no problem in coming out.

Rod, I know there's a lot of canola there, but what about other products such as corn or anything else that may have had an impact, such as using ATELP in the corn applications in Ontario and most likely in Quebec?

**Mr. Rod Scarlett:** Again, it's all information that's handed down to me. You're right; the seed differences—the round seed, versus corn—may have a difference there. I know they're testing new talcs.

We do understand that there is an issue in Ontario and Quebec. Davis even kind of said that it might be different when he moves his bees to soy. They're still finding things, but soy is a rounder seed.

It might be the seed conformation that's creating a problem, along with the insecticide or the neonic treatment. That's where our research has to go. We have to be clear in what we're going to do, whether it be seed treatment on corn or the full family. We need to know what we're doing before we do something.

**Mr. LaVar Payne:** Yes, and I understand some of the farmers in Ontario have now changed from a talc to a polymer seed. I know there are some test areas going on, and I don't know how that's going to shake out.

Certainly, comments either from yourself or Davis would be fine.

● (1200)

**Mr. Davis Bryans:** I actually have two locations where they're doing this. I offered beehives to it.

They haven't planted, but—

**Mr. LaVar Payne:** They haven't planted, you said?

**Mr. Davis Bryans:** They haven't planted right on the test plots yet, and they haven't set them up properly.

But I was talking to Tom Congdon, who's another beekeeper south of us. He had the yard set up, but they hadn't put the stuff on—the pollen traps and the bee catchers—and yesterday a neighbour planted corn beside it and wiped out all the flying force. So, they won't even be able to use that experiment, because it's already wiped out the yard of all the flying bees.

**Mr. LaVar Payne:** That's from the polymers?

**Mr. Davis Bryans:** That's from another farmer who planted the corn. It probably wasn't a polymer, because he—

**Mr. LaVar Payne:** I understand, okay.

**Mr. Davis Bryans:** —got it on the field beforehand. They didn't even have it set up for the guy who was going to plant the polymers. So, it's pretty much an infant right now. It's a big learning curve.

I'd hate it to be us that has to foot the bill. This is very expensive. I couldn't get a statement from anybody in government, so I asked an ex-provincial apiarist, Doug McRory, and he estimated there was between \$5 million and \$6 million worth of damage done in Ontario last year.

**The Chair:** I have to stop you there. I'm sorry. I know it's very interesting, but time has run out.

I thank our guests for being here today. Your input will hopefully be identified in the final report, so thank you very much.

We're going to recess for a couple of minutes while our second set of guests takes the table and the witness chairs. We'll be back in two minutes.

● (1200)

\_\_\_\_\_ (Pause) \_\_\_\_\_

● (1205)

**The Chair:** Welcome back to round two.

Joining us for the next hour from the Pest Management Regulatory Agency of Health Canada is Scott Kirby, the director

of the environmental assessment directorate; and Jason Flint, director, policy and regulatory affairs division, policy, communications, and regulatory affairs directorate.

Welcome. I understand you have an opening statement to make, and then we'll move to the Q and A from the committee members.

Please begin.

[*Translation*]

**Mr. Scott Kirby (Director, Environmental Assessment Directorate, Pest Management Regulatory Agency, Health Canada):** Good afternoon, Mr. Chair and members of the committee.

We appreciate the opportunity to give you an update on the situation facing honeybee colonies in Canada, on what action Health Canada's Pest Management Regulatory Agency has taken to address the issues related to bee losses experienced in the spring of 2012, and what we see happening in other jurisdictions.

Health Canada is responsible for administering the Pest Control Products Act. The act requires that pesticides that are registered for use in Canada do not pose unacceptable risks to health and to the environment. Pollinator health is critical both to agriculture and our natural environment and we take this issue seriously.

● (1210)

[*English*]

I would like to begin by emphasizing that honeybee loss is a very complex matter, and no single cause has yet been identified. The bee losses reported to Health Canada between April and June of last year are just one aspect to consider when looking at the larger issue of long-term pollinator health. The latest science and emerging research on honeybee health suggests that pesticide exposure is but one of several factors linked to declines of honeybee populations, and I will say a few short words on this later on.

First, I would like to provide you with a summary of what happened last year. Between April and June of 2012, Health Canada received a number of incident reports of bee losses from across southern Ontario, involving 40 beekeepers and over 200 bee yards, as well as one report from Quebec involving eight bee yards. The timing and location of these incidents coincided with planting in major corn-producing regions of those provinces. Consequently, samples of affected bees were taken at a number of locations where bee losses were reported and analyzed for pesticide residues by our laboratory services or by the ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec.

The analysis showed residues of nitroguanidine neonicotinoid insecticides used to treat corn seed present in approximately 70% of the dead bee samples. Insecticides used to treat corn seeds are believed to be a significant contributing factor in many of the 2012 bee losses.

The route of exposure is believed to be through dust containing insecticide residues that was generated during the planting of the treated corn seed. Neonicotinoid insecticides have been used for the last decade and significant bee losses were not reported to us until last spring. So what changed last year to create this situation?

One important difference last year appears to be the weather. Last year Ontario and Quebec experienced a very early spring that was hotter and drier than usual. These conditions likely resulted in greater dust generations during corn planting, and consequently, bee colonies being exposed to higher than anticipated levels of pesticides during the 2012 corn planting season.

Because of these incidents, we have implemented a number of measures to reduce pollinator exposure to neonicotinoid insecticides for the 2013 growing season. I will go through each of these briefly.

First, best management practices have been collaboratively developed with international regulatory agencies, growers, beekeepers, equipment manufacturers, and the pesticide industry. These best practices provide a tool box of options to help reduce risks to pollinators. Updated guidance to growers has been published on our website, and a proactive outreach campaign has been completed in Ontario and Quebec.

Second, registrants of neonicotinoids used to treat corn seed will be reporting annually to Health Canada in compliance with a technical standard for dust on treated corn seed, which will be consistent with both the U.S. and European standards.

Third, information will be included on seed tags for treated corn to alert growers and applicators of the potential risk to bees, and to provide information regarding best management practices to be employed during the planting of such seed. Specific wording changes have also been made to pest control product labels, currently affecting seven products.

Finally, we are working with the pesticide and seed treatment industries to develop engineering controls that will further reduce exposure, things like better seed coatings, low-dust seed lubricants, and improvements to planting equipment. In June 2012, Health Canada also announced the re-evaluation of neonicotinoid insecticides, which will consider all available scientific information on the potential impact on bees and bee populations.

This re-evaluation may take several years to complete, however, I would like to emphasize that additional regulatory restrictions will be implemented as required, and may occur prior to the completion of the re-evaluation, if warranted by a scientific determination of risk.

On the broader issue of pollinator health, Health Canada has been working with colleagues in the U.S. and Europe to understand what role pesticides may be playing in declining honeybee populations.

So far, scientists who have been investigating the loss of honeybees have suggested there may be a number of factors involved, such as the presence of honeybee pests, limited genetic diversity, diseases, harsh winter conditions, poor nutritional status, exposure to pesticides, and stress. While Canadian honeybee producers have experienced losses in recent years, the phenomenon

referred to as colony collapse disorder in other parts of the world has not been observed by apiculturists in Canada.

One of the leading causes of Canadian honeybee losses appears to be associated with pests and diseases. The most significant of these in Canada are the varroa mite, tracheal mite, American foulbrood, and nosema. Over the last few years Health Canada has registered three new in-hive treatments to help combat these pests, and we continue to work with the beekeepers and professional associations to better understand the challenges facing this industry.

On the global front, Health Canada is actively participating in efforts to understand the role that pesticides may play in affecting bee health. Health Canada and the U.S. EPA currently co-chair the OECD working group on pesticide effects on insect pollinators. This OECD group is responsible for communicating pollinator incidents and improving data requirements and guidance used in risk assessments, as well as identifying new ways to reduce pesticide effects.

We are also participating in the International Commission for Pollinator-Plant Relationships to further investigate specific effects of pesticides on bees and other important pollinators. Finally, we collaborated with the U.S. on a recent update to a joint Canada-U.S. risk assessment framework for evaluating the risks that pesticides may pose to pollinators.

We acknowledge the importance of pollinator health to both agriculture and the natural environment. We continue to work closely with leading scientists around the world to protect both honeybees and wild pollinator populations. We are closely monitoring the situation and will take measured action when warranted.

In closing, I would like to thank you, Mr. Chair, and members of the committee, for providing this opportunity to speak to you today about this important matter.

• (1215)

**The Chair:** Thank you very much.

Ms. Mathyssen, welcome.

**Ms. Irene Mathyssen (London—Fanshawe, NDP):** Thank you very much, Mr. Chair, and thank you to Mr. Flint and Mr. Kirby.

A couple of questions.... You said in your brief that Health Canada has registered three new in-hive treatments to help combat the pests that are creating problems. Could you describe those? What are they, and what impact do you think those new in-hive treatments will have?

**Mr. Scott Kirby:** I'm not sure I can give you a lot of details on them because I'm working on the environmental side of things. I do have here a list of the products that are registered. The new registrations are: Mite Away Quick Strips, Permanone Multi-Purpose 10%, and Apivar. These are for a variety of pests, including varroa mites, tracheal mites, small hive beetle. Hopefully, this will provide honeybee growers some additional tools in their tool box to control these pests.

**Ms. Irene Mathysen:** Thank you.

Now, you and other researchers have indicated that last year was a perfect storm in terms of the weather conditions, the pests, and the use of the neonicotinoids on the corn seed, and that you're taking steps to address that, to try to mediate that.

First of all, I wondered what those steps were. Secondly, yes, last year was unusual, but it seems to me we're hearing more and more that we're going to get more and more unusual kinds of weather conditions. We have to be cognizant of what is happening in our environment. Could you explain the remediations so that I can understand how you hope to control or change the reality of that strange 2012 season?

**Mr. Scott Kirby:** I'd be happy to. The first area we've been working on with our stakeholders is the production of best management practices. Those have been communicated to stakeholders via our website, but we've also had a variety of people on the ground communicating with growers and beekeepers in terms of submitting that information.

The best management practices include things that we've already spoken of earlier in terms of getting in touch with beekeepers; finding out where the hives are; communicating with the beekeepers on when you're going to be applying the pesticide-treated corn; monitoring weather conditions and trying to apply when weather conditions are not conducive to high dust-off; properly maintaining your equipment; and properly disposing of leftover seed and seed bags. There's a series of these BMPs that are being communicated. The growing season is under way, so we're hoping to see very positive results from that.

With respect to your point about climate change and what might be down the road, that is certainly true. We're not counting specifically on these BMPs as the ultimate solution to the problem. We feel that the longer-term measures that we've been working on with equipment manufacturers as well as the pesticide companies are going to be what will ultimately provide the best protection to pollinators. These are things such as developing better seed coatings for the treated seed and low dust-off. Lubricants are being worked on—actually there's one field trial this year, I believe—as well as improvement to equipment in terms of things such as deflectors to prevent dust from travelling far afield.

• (1220)

**Ms. Irene Mathysen:** Thank you.

You talk about field trials and better seed coating. It makes me wonder about what is currently out there and what seems to have caused the problem in the past couple of years in regard to these treated seeds.

Was enough research or work done on the corn seeds that seem to be at the centre of this problem? Is it that the product was taken to market too quickly? What do you make of this situation that surfaced? Were we or the company too hasty?

**Mr. Scott Kirby:** Quite honestly, I don't feel competent to address that question in terms of the amount of research that was put into it by the companies. The information that is submitted to the agency—at least my part of the agency—is specific to environment-related effects.

I think you might want to talk to the companies, but my impression is that there is a large amount of R and D, millions and millions of dollars, going into researching these types of products, and I would assume that due diligence was followed.

**The Chair:** Thank you.

Mr. Miller, welcome back.

**Mr. Larry Miller:** Thank you, Mr. Chairman. It's good to be here.

Thanks, gentlemen.

It's quite obvious from our witnesses, and I'm aware of it in my riding—I am a farmer and I have had honeybee hives on a couple of my properties—that everything out there points to something, whether it's the seed coating or spray that's on corn. At the same time, we have a problem there, but is there actually science that points specifically to that?

You mentioned a number of things. Research is done, of course, by the chemical companies and what have you. What kind of peer review does Health Canada or somebody on behalf of Health Canada do to make sure all that research is valid? Is that research independent to a degree?

I'd like you talk a little bit more, if you could, about seed coating. Is it just about the product? Is it how they coat the seed? I'll let you answer those two, if you could.

• (1225)

**Mr. Scott Kirby:** With respect to the amount of research that's done to bring a product to market, it is very extensive. For instance within our environmental assessment directorate, an evaluator or a team of evaluators would be looking at literally hundreds of studies and tens of thousands of pages of data.

The registrants are required to provide not only summaries of the experiments or the research, but also all of the raw data. Then our scientists independently go through all that information and decide whether they agree with the conclusions of the manufacturers or not. If they don't, then we change the conclusions to suit what our scientists feel the science says.

**Mr. Larry Miller:** Were there any changes in the testing or recommendations on this particular product that is suspected and used on corn?

**Mr. Scott Kirby:** Not specific to corn dust-off. That is an exposure pathway that, at the time these products were registered, was not on the radar globally.

**Mr. Larry Miller:** Okay, but since it appears to be a problem, is there any research that has been done or is being done on that?

**Mr. Scott Kirby:** Not with respect to data that has been required by the PMRA per se, in terms of a registration. There is research being done by the chemical companies in terms of improving—

**Mr. Larry Miller:** Okay, I'll just rephrase this, then. There's obviously a problem. Everybody suspects what it might be. But again, we have to make sure it's scientifically proven—yes or no.

My question is this. With all the allegations.... I had some huge bee losses in my own riding, and mine wasn't the only one last year. Most of this happens right at planting time. So why wouldn't research be done, or started, to find out?

You can't just shut down the grains and oilseed industry, so we need to find a solution. If this product is doing it, we need to prove it one way or the other. To me, it seems that would ultimately be someone's job—whether or not it's yours—but it's someone's responsibility to get at it and get it done.

**Mr. Scott Kirby:** We have been working extensively with the equipment manufacturers as well as the pesticide companies to move in that direction, in terms of developing better polymers to coat the seeds as well as lower dust-off lubricants. So that work is under way.

It's in everybody's best interest that we move fast on this, and that's being done. We're going to continue working with those stakeholders to make sure, because we feel those long-term solutions are ultimately what is going to lead to the most desirable outcome.

**Mr. Larry Miller:** If that research is ongoing, when can we expect...? There must be a timeline on it for when we'll see some of those findings.

**Mr. Scott Kirby:** That research is not part of a regulatory requirement that was put in place by the PMRA as a condition. These products are already registered.

What we are doing now is working with stakeholders to develop solutions to a problem. We've put in place the BMPs as a beginning solution, and then the long-term solution, in terms of the equipment and the better seed coatings.

**The Chair:** Thank you. I have to—

**Mr. Larry Miller:** Is that it?

**The Chair:** Yes, sorry.

Mr. Valeriote.

**Mr. Frank Valeriote:** Thank you, Mr. Flint and Mr. Kirby.

I have three questions.

Presumably you're in consultation, not just with farmers and beekeepers but with the provinces and their ministries of agriculture, I would think. I'm curious, as your investigation continues, would you have the authority, in consultation with the provinces, or would the provinces have the authority, to say, "Okay, based on Mr. Scarlett's testimony, we see that it's particularly a problem in Quebec and Ontario, so we're going to put a moratorium on it in Quebec and Ontario"? That's the first question. Could you get to that point without more evidence coming before us? It would have to come before you, you would talk to the provinces and presumably the ministers, and you would come to a conclusion about whether it's necessary or not.

Number two, is the evidence you look at and are the conclusions you come to based on the balance of probabilities that this is the cause, or is the threshold much higher, beyond a reasonable doubt, in other words? Do you have to come to that point where you say, "This is it, that's what's doing it, and there is going to be a moratorium", or is it on the balance of probabilities and then you say, "Okay, better safe than sorry"? That's the second question.

Third, people keep talking about best practices. I heard from Davis Bryans that it doesn't seem that best practices are always practised. I wonder to what extent can you even regulate or police best practices. If you can't, it sounds to me like the problem is going to continue. You heard Davis Bryans. He said he spoke to one farmer on one side and it was managed properly, and then on the other side it wasn't managed properly.

Those are the three questions for you.

• (1230)

**Mr. Jason Flint (Director, Policy and Regulatory Affairs Division, Policy, Communications and Regulatory Affairs Directorate, Pest Management Regulatory Agency, Health Canada):** To start with the first question, around the authorities, the Pest Control Products Act does have the authority to take action if there is a risk of harm or serious universal damage being caused by the products we have.

Yes, we could put restrictions on, particularly, the uses or even regional restrictions, saying that for Ontario or Quebec it could not be used in those provinces. The authority exists to do that if we believe there is a risk of that sort of damage. It can be done immediately, and it can go right up to full cancellation of the product if we believe action is warranted.

The work is ongoing right now to determine if there is a need for further action or not.

Do you want to talk about...?

**Mr. Scott Kirby:** I'll talk about probability.

With respect to the weight of evidence before taking action, if we're talking specifically to the bee incidents of 2012, our conclusion was that the treated seed dust contributed significantly to the bee losses. That is why we basically took immediate action. We determined there was an issue and we developed BMPs in collaboration with all of our stakeholders.

From that perspective, the threshold had been met in terms of being able to take regulatory action at that level. We feel that what's being put in place, in addition to the unusual circumstances in terms of weather last year, is going to be sufficient to mitigate future events. As I said, these long-term solutions will be what we're aiming for in terms of a lasting solution.

**Mr. Frank Valeriote:** Is there a way to impose regulations and policing?

**Mr. Scott Kirby:** With respect to getting to the BMP question, BMPs are voluntary. These are not mandatory measures.

One of the reasons for that—and you've heard from other witnesses—is that not all BMPs can be applied at all times. There are a variety of situations, for instance, where the window to plant seed is very narrow and you're only able to have a day, let's say, to plant your field. You may not be able to implement all of the best management practices.

The idea of this is to have a suite of practices so that farmers can implement as many as practical in order to try to minimize risk to pollinators.

**Mr. Frank Valeriote:** Do I have any more time?

**The Chair:** You have four seconds.

**Mr. Frank Valeriote:** I have quick questions.

I know it's hard to predict the weather, but will you be watching this going into next spring, and perhaps imposing a moratorium if you expect the same conditions of 2012 will exist in 2014?

**Mr. Scott Kirby:** We'll certainly be monitoring the weather. We've been monitoring it all this spring.

I think it would be too early to tell what my response to that would be, especially based on where we're at with these new...especially the long-term issues.... As I say, they're already testing a new lubricant. If those are in place, whether or not we're predicting an early spring, we would have our provincial counterparts as well as our regional people out in the field, talking with farmers and beekeepers, trying to make sure that everybody is talking to each other, and trying to minimize risk.

**The Chair:** Thank you.

Mr. Richards.

• (1235)

**Mr. Blake Richards (Wild Rose, CPC):** Thank you.

I have two questions for you, very similar to the line of questioning that Mr. Miller was going down. I don't think he quite got to the type of answer I was looking to get prior to his time expiring, so we'll go there.

In the time that we've spent studying this, we've heard from a number of different witnesses. It seems to me that it's been nearly unanimous. The vast majority of our witnesses have been very clear that the losses of honeybees are related to a number of factors.

In your testimony, you said:

So far, scientists who have been investigating the loss of honeybees have suggested there may be a number of factors involved, such as the presence of honeybee pests, limited genetic diversity, diseases, harsh winter conditions, poor nutritional status, exposure to pesticides, and stress.

That was what you indicated to us, and certainly that is what we've been hearing from the vast majority of our witnesses. There are a large number of factors, and it isn't one specific thing that would be causing honeybee losses.

We did have one witness this morning who indicated that he felt otherwise. He felt that it was just one factor. He also indicated that he felt that the research and the studies that have been done were all biased, because they had all been paid for by chemical companies, and there was nothing out there that indicated those kinds of

findings, which we've been hearing from just about everyone we've heard from.

You've indicated here that scientists who've been investigating the losses have found that a number of factors may be involved.

Would those scientists you are referring to be independent, credible scientists? Or are these all scientists being paid for by chemical companies?

**Mr. Scott Kirby:** This is a combination of information generated by chemical companies as well as a large volume of literature outside of that, which is being generated by government scientists from the USDA, the U.S. EPA, and also by academics in Europe and in North America. We're mandated to look at all available information. We look at what is required from the registrants—

**Mr. Blake Richards:** I don't want to lose these concerns but we only have a limited amount of time.

I appreciate that you said you looked at a variety of information. Obviously, it only makes sense for the chemical companies to do research and study. That's doing their due diligence. It's probably what's required of them by regulators such as yourself.

But, obviously, you want to look at all the research that's out there. In the comments you made to us, you've indicated you have done that, and that's based on a variety of sources. Chemical companies may have paid for some of those studies, but certainly, there are a lot of other independent sources that you rely on for those comments. I appreciate that.

We've heard from others, like the grain growers in Ontario and the Canadian Honey Council, about some of the work they've done. I would assume, obviously, that they're utilizing independent sources as well. I'm sure you're familiar with the work that has been done by those groups. That work would have been done with advice from independent sources as well, I would assume. Is that correct?

**Mr. Scott Kirby:** I would assume so, yes.

**Mr. Blake Richards:** Okay, I just wondered if you knew.

Specifically on this issue of the dust that we're hearing about, from the seeding of corn, there was an indication that there were a number of factors. You believe, and certainly others we've heard believe there were a number of factors involved in the losses we saw in Ontario. Weather has been one of those things mentioned—the winter conditions, etc.—in addition to a number of other factors. I'm assuming that, to make a conclusion that it is one particular factor causing this—something like this dust from the seeding—would be a pretty difficult conclusion to make based on one year.

Over what length of time, what number of seasons, would research be required, in order to come to a correct conclusion about what the factors would be in something like that? I'm sure it couldn't be just one season, correct?

**Mr. Scott Kirby:** No. If I could just clarify one thing, there are two issues with pollinators that we're dealing with. One is the acute events that were associated with last spring, specific to a dust-off, which our assessment indicates that the pesticides were definitely a contributing factor.

The second is the global decline of honeybee populations, colony collapse disorder, and whatnot. So the multiple factors are quite relevant to the issue of the broader bee health, whereas in the spring events of last year—while there may have been other contributing factors—the pesticides were definitely implicated and that's why regulatory action was taken.

• (1240)

**Mr. Blake Richards:** I don't mean to cut you off again there, but can I very quickly—

**The Chair:** I have to cut you off, we're well past the five minutes. I'm sorry.

Mr. Allen.

**Mr. Malcolm Allen (Welland, NDP):** Thank you very much.

Let me just follow the direction that Mr. Richards was going, and I'll actually take us back to your opening comments, Mr. Kirby. You said, yes, it's a complex matter, and I think all of us understand that. I think you're articulating the sense of the complex matter of beekeeping and beekeeping. What's happening worldwide is a longer-term issue than what we had—and I believe the words you used were an acute episode—last year in Ontario and Quebec, that talked about...

Whether it be a perfect storm or not, as my friend Mr. Valeriotte just talked about, I believe the number you used in your opening statement was, "The analysis showed residues of nitroguanidine neonicotinoid insecticides used to treat corn seed present in approximately 70% of the dead bee samples."

Now that wasn't in Canada, that was specific to Ontario and Quebec. Is that correct, sir?

**Mr. Scott Kirby:** That is correct.

**Mr. Malcolm Allen:** So in other parts of the country that's not true.

**Mr. Scott Kirby:** In other parts of the country, we haven't analyzed for those products, because there haven't been any incidents to date.

**Mr. Malcolm Allen:** My understanding from talking to other beekeepers in the west is that they didn't seem to have the same acute episode last year that we had in the eastern part of the country, if you will. So it's interesting and perhaps somebody should be doing a study of what else is happening when it comes to some of this stuff.

But you were asked a question about independent research and I took the liberty of looking at your references in your document, which is called "Pollinator Protection: Reducing Risk from Treated Seed", dated April 8 of this year. I did a quick check through your references. There's nothing wrong with the references you're using. These are peer-reviewed documents given at different symposiums.

If you could point to one, sir, because as I read them, I didn't see a Canadian one here. They all look like European...in fact I believe they're all European. There isn't a Canadian reference document here at all. It's the ESA, which is the European Seed Association. It's the EU. It's things in the Netherlands, things done in Germany, but nothing done in this country.

I'm not saying that we can't use things from other places to talk about what happened, but would it not be appropriate if we had some

independent study that's actually Canadian-based research that helps us understand if it was a perfect storm of that acute episode we had last year, or was it something all together different?

Would it not be helpful if we were doing that here? I don't necessarily mean PMRA, sir, I just mean in general terms.

**Mr. Scott Kirby:** I definitely think that Canadian-specific information may be useful in this type of a situation. Just to clarify, the references in the document that you're speaking to, a lot of those are related to things to do, again, with seed coatings and equipment, and whatnot, as opposed to scientific studies, as we would be evaluating in a re-evaluation. That's just to be clear.

**Mr. Malcolm Allen:** I recognize, and I could have explained that. I appreciate you explained it. They are speaking about coatings and dust, and those are important things to talk about. They're talking about neonics, but the studies weren't done here. They were done elsewhere. So it's not to say that they're not valid, I'm simply saying, would it not be helpful to our industry if someone was actually doing the studies here? It doesn't invalidate these studies at all. They're quite valuable obviously, and they pointed to some things. But my guess is—and I haven't read these studies and we'd have to go and look at them—the EU decided to place a moratorium, did they use these references to actually develop the moratorium?

I don't know. I don't know whether you know, but if we were doing our own.... We're looking at short-term and long-term solutions. Some of the short term are best management practices—and you've answered that question. Some of the longer-term issues are seed coatings and some other things that perhaps we can do, polymers and those sort of things.

So I guess the question I would ask is this, and maybe I should have asked CropLife but we ran out of time. Is there a timeline that you see that needs to be associated with this sense of where we go forward? Notwithstanding that I believe the industry is actually trying to do it quickly, but in your view should this be something that needs to be done quickly?

• (1245)

**Mr. Scott Kirby:** I'll answer the questions in two parts. With respect to the acute incidents and the mitigation measures, yes, the sooner we can get those technologies in place, the better.

However, we are re-evaluating all the neonicotinoids. That is requiring the chemical companies to generate a significant amount of additional data, much of which is going to be Canadian specific or at least relevant to Canada so we can evaluate the broader issue with the neonicotinoids. There's a short-term framework in terms of dealing with the acute issues, then the longer-term issue in terms of neonicotinoids as a whole. As I said, we're monitoring the information as it's being developed. If anything comes to light that would require regulatory action, we wouldn't hesitate to take it.

**The Chair:** Thank you.

Mr. Zimmer.

**Mr. Bob Zimmer (Prince George—Peace River, CPC):** Thank you for appearing at committee today.



I'll refer to what my colleagues have said, Mr. Richards specifically, about unintended consequences if we place a ban on pesticides. We're concerned about beehive populations in Canada; the numbers are dropping.

I'll quote from an article in the U.S., and this is the one you referred to, the EPA and the Ag study. It says:

But officials in the United States Department of Agriculture, the Environmental Protection Agency and others involved in the bee study said that there was not enough evidence to support a ban on one group of pesticides, and that the costs of such action might exceed the benefits.

The EPA is quoted as saying:

"At E.P.A. we let science drive the outcome of decision making," said Jim Jones, the agency's acting assistant administrator for chemical safety and pollution prevention.

There are non-trivial costs to society if we get this wrong. There are meaningful benefits from these pesticides to farmers and to consumers as well as for affordable food.

With that in mind, can you comment on the unintended consequences if we place a ban without having the solid stats. I'm absolutely behind this. If we have science that proves this is a problem without a shadow of a doubt, then we should act. By banning without a scientific basis, those unintended consequences will hit us. It's not going to be a small hit. It'll be a big one.

Can you comment on the unintended consequences of a possible ban?

**Mr. Scott Kirby:** Sure, I can comment on that.

Three come to mind right off the bat. First is the level of confidence the public as well as their stakeholders will have in the regulatory system in Canada, which is a significant unintended consequence. If we move too quickly to take regulatory action without the scientific weight of evidence to support those decisions, our credibility is diminished significantly. Right now, we are considered a world leader in terms of pesticide regulation.

Second, and I think it's already been spoken to before, the registrants require some level of predictability in the regulatory process. Again, to take action without the weight of evidence leaves the registrants questioning whether \$100 million invested in developing a pesticide and bringing it to market is a good investment when it's not an outcome, if the way decisions are going to be made at the regulatory level isn't predictable.

Third, and again this has already been spoken to, in terms of crop production and the agricultural sector, the neonicotinoids are a very heavily relied upon group of chemicals. They have replaced some of the more, I would say, nasty chemicals that were registered before them, which were much more broadly toxic to a much wider variety of organisms as well as people. There is the possibility that getting rid of them and using more of these other chemicals, which have not been banned, may make—

**Mr. Bob Zimmer:** For the benefit of the committee, the people in the room here, and the people who'll be reading this later, what's the next step? We're talking about further study. What's the timeline? Is there an action plan for where we go from here?

● (1250)

**Mr. Scott Kirby:** That whole class of insecticides is being re-evaluated. We're doing that jointly with the United States Environmental Protection Agency. A data call-in has been issued on some of them. We have looked at the information that we have at hand. We've identified gaps in the information, and we are requiring the registrants to produce the information to fill those gaps. That step takes time. The registrants have to be able to generate that data. Depending on the type of study, it could take up to two years to generate data and submit it. Then our scientists would look at that.

You're talking years to come to a finite conclusion.

**Mr. Bob Zimmer:** Do you have a number for the years?

**Mr. Scott Kirby:** I think the target is 2017 or 2018, but as I said, that is for the completion of the re-evaluation. Because this data is coming in at any time and we're reviewing it as it comes in, we can take action if we see something that is of concern.

**Mr. Bob Zimmer:** Thank you.

**The Chair:** Thank you.

Ms. Brosseau.

**Ms. Ruth Ellen Brosseau:** Thank you, Chair.

Thank you to our witnesses.

You were talking about the environment and how you were surveying where we were last year, with the type of weather we had. You're following it now.

How are we now compared to where we were last year? I don't remember this time last year how warm it was; I'm sure I could check and find it. To date, do you know if temperatures are comparable today to where we were last year? Do we foresee the same kinds of losses as we did last year, or are we in the clear this year?

**Mr. Scott Kirby:** This year is much more favourable than last year. It was more of a normal year in terms of temperature, snowfall, and moisture levels. We can't come to a final conclusion yet, but to date more than 70% of all the corn has been planted in Ontario. We have had no major incidents reported to date. We have had a few minor ones, which are being looked at right now, but they are nowhere close to the scale we saw last year. So I am very hopeful that this will be a normal year with respect to both corn planting and bee health in terms of corn dust-off.

**Ms. Ruth Ellen Brosseau:** The national farm-level biosecurity standard for the bee industry was announced by your minister yesterday. I started to go through it. It was released from CFIA.

I think it would be a good idea if we had CFIA come in and maybe explain this to us, or if we had some time to look at this report. It's a national strategy for farm-level biosecurity, concerning bumblebees and moving forward. I think it would be really important.

These moving forward suggestions and best management practices are great, but they are voluntary, right? There's no way to make sure people are using these best practices. It's like suggesting somebody stop at a stop light, but there are no consequences for their actions.

That came out wrong. This is not a very good day for me.

I was wondering, would it be possible to invite CFIA to come in?

**The Chair:** We would have to have that discussion. This was actually the last meeting designated for this.

**Ms. Ruth Ellen Brosseau:** Would I have to have a motion or something to prolong the meeting?

**The Chair:** We can discuss it as a subcommittee, for sure.

**Ms. Ruth Ellen Brosseau:** Okay.

I guess that's it.

Do you have any questions, Irene?

**Ms. Irene Mathysen:** Yes, I do have one that I didn't get to ask before. It has to do with some of the things Davis Bryans was saying that I'd like to follow up on.

He described a situation in his apiary where there was supposed to be a test in regard to dust. One of the plots was going to be planted with seed that was bonded differently, I guess. The test couldn't go ahead because the loss of the flying bees was such that there was no point in proceeding. Have you gone back to him to find out what's going on? You said there were follow-up studies. Is he one of those people you will talk to?

I think Mr. Bryans made a good point in regard to best practices. You can start out on a day when the wind is calm and within minutes you have a 20-mile-an-hour wind. I understand that you did say that it's a suite of interventions, but that's still an issue.

Finally, he said that Bayer has seed that is not treated. I wonder if you know about that. If it's an effective seed, why aren't we hearing more about it?

•(1255)

**Mr. Scott Kirby:** I'll try to remember all the questions.

On the first one with respect to the research project that's ongoing, I'm not 100% sure if it's the same project I'm thinking of, but there is a study being done, I think in collaboration with the Province of Ontario, looking at dust-off from treated corn. We haven't heard the results of that. I think that's ongoing. At this point, at least on my part, there has been no discussion with the people who are doing that study.

**The Chair:** Thank you.

Mr. Lemieux, a final comment.

**Mr. Pierre Lemieux:** Thank you very much, Mr. Chair.

First, I'd like to thank Ruth Ellen for the thumbs up that she gave our minister for the announcement just yesterday.

I want to say I really enjoyed your brief. One of the things that struck me was our interaction or Health Canada's interaction

internationally, the fact that Health Canada is co-chair of the OECD working group on pesticide effects on insect pollinators, that you participate in the International Commission for Plant-Pollinator Relationships, and you recently collaborated with the U.S. on a joint Canada-U.S. risk assessment framework as well. I think that's encouraging. It's good for the committee to hear that. It's good for Canadians to hear that. Beekeepers have support through these joint efforts. I think that's good.

The other thing that caught my interest was that you had made a comment here that one of the leading causes of Canadian honeybee losses appears to be associated with pests and diseases, and then you listed the varroa mite, tracheal mite, American foulbrood, and nosema. That's interesting because our conversation has tended to go to the neonicotinoids. However, we heard from Alberta that mites are a huge risk to bee colonies.

You mentioned Health Canada has registered three new in-hive treatments to help combat these pests. Could you explain some of those to us, one or three, depending on the time, and sort of how it is applied and what's the outcome? What's the hope for outcome when those types of products are used?

**Mr. Scott Kirby:** I would actually have to get back to you on that because I'm not the product value person. I know that they're hung inside the hives and they impact the pests, but if you would like details, I can certainly provide you with—

**The Chair:** I would have to ask that you submit that through the chair to the committee.

**Mr. Pierre Lemieux:** Great. I will just conclude, Mr. Chair, by saying that I find it interesting that industry is also responding to hive distress and bee losses with products that could be used in-hive to reduce bee losses, which I think shows that all stakeholders—farmers, beekeepers, companies, businesses, agrifood businesses—have a vested interest in a healthy honeybee population. I think that's what we've heard over these last couple of days. People and groups and different stakeholders are responding in very positive ways to minimize and reduce the problem.

Thanks, Chair.

**The Chair:** Thank you.

With that, I'll thank our guests. I appreciate your time here today and look forward to further discussion as we move forward. Thank you.

For the committee, I'll just remind you that after the constituency week.... You'll have received your red meat recommendations and you'll also have received version one of the grains and oilseeds package, so please read them over your time away.

I will advise again that we are looking for a list of witnesses for the animal welfare discussion, and I would hate to see somebody left out if the lists weren't in. I know we have one list in as of today.

Thank you. Have a nice week in your homes. The meeting is adjourned.







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