

Standing Committee on Agriculture and Agri-Food

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Tuesday, May 7, 2013

Chair

Mr. Merv Tweed

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● (1100)

[English]

The Chair (Mr. Merv Tweed (Brandon—Souris, CPC)): Good morning, everyone. Welcome to meeting number 79 of the Standing Committee on Agriculture and Agri-Food. Our orders of the day, pursuant to Standing Order 108(2), are a study of losses in honeybee colonies.

Joining us today for the first hour, from CropLife Canada, is Pierre Petelle, vice-president of chemistry, and Maria Trainer, managing director of regulatory affairs; and from the Grain Farmers of Ontario, we have Mr. John Cowan, vice-president of strategic development.

I'll ask you to each make an opening presentation, hopefully for no more than 10 minutes. If you do go over, I'll cut you off, because we do have a lot of witnesses today and we'd like to hear from everybody.

John, if you'd like to start, then we'll just move down in the order.

Mr. John Cowan (Vice-President, Strategic Development, Grain Farmers of Ontario): Good morning. I'm John Cowan, representing the Grain Farmers of Ontario. I'd like to thank you for the opportunity to present the Grain Farmers' position on this very important matter of bee pollinator health in the country.

For a little background, the Grain Farmers of Ontario represent the 28,000 farmers who produce corn, soybeans, and wheat in the province of Ontario. It is three associations that amalgamated three and a half years ago to represent those crops. Our crops cover over 5 million acres and generate about \$2.5 billion in farm gate receipts in Ontario. We operate under the guidance of 15 elected directors, and we have 150 elected delegates representing 15 districts across the province.

I have two statements right off the bat. The Grain Farmers of Ontario recognize the importance of bees in our natural environment and their importance as pollinators for multiple agricultural crops. Ontario farmers also recognize the need for seed treatment insecticides to protect corn, seed, and seedlings.

I'll just give you a little history on seed treatments and insecticides in Ontario, and in Canada for that matter. Prior to registration of neonicotinoids, corn seed was treated with lindane, which is an organochloride insecticide. In 2001 Health Canada concluded that the use of lindane as a seed treatment posed an unacceptable risk to workers. Lindane was officially discontinued in 2004. Basically, it was very bad for farmers. The current neonicotinoid seed treatments were registered between 1995 and 2003—so over 10 years ago—and

are considered much safer for farmers than what was previously used.

The Grain Farmers of Ontario were first made aware of significant bee deaths this past spring.

Compared to broadcast spray applications of insecticides, seed treatment, applied to the seed, reduces the amount of pesticides used by ten to twentyfold, which is safer for both farmers and the environment. Polymers are used to bind the insecticide to the seed, and treated corn seed is buried four to eight centimetres under the surface of the soil. The insecticide protects the corn seed and seedlings from insect pests that feed on the plant until it begins drawing nutrients through its root system.

Plant stand losses have been measured by the Ontario Ministry of Agriculture and Food at three to twenty bushels per acre without an insecticide because of wireworm, seed maggot, and white grub. A 20-bushel-per-acre stand loss at current corn prices is equal to a loss of almost \$130 per acre for corn farmers. Many of our members report that a 10% stand loss is average, which would be approximately \$95 per acre. To a 500-acre corn producer, that would equate to approximately \$50,000 in losses, which of course would go right to the bottom line in terms of profitability.

Seed treatments represent an insurance investment against potential yield and therefore income loss. There are no alternative insecticides available to protect corn from these early season pests.

The Grain Farmers of Ontario support research towards this important topic. We are currently supporting a project in collaboration with OMAF and the Ministry of Rural Affairs in Ontario with the following objectives:

- determine the presence of bees and flowering plants in and around cornfields at the time of corn planning and how pollinator exposure to pesticide-contaminated dust can be reduced;
- determine the role of seed lubricants in the production of pesticide-contaminated dust during corn planting.

The study includes beekeepers and corn producers in Ontario working together and is valued at \$340,000, with funding derived from OMAF and the Ministry of Rural Affairs, the Agricultural Adaptation Council, and the Pollinator Partnership from the United States.

Grain Farmers of Ontario are committed to understanding the issues, staying informed of research results, and communicating best management practices with our farmers. We are committed to good stewardship for the products we use and to working towards a solution based on sound science that ensures healthy crops and healthy bees.

● (1105)

In conclusion, many people are looking for the single silver bullet solution. A recent USDA study published last week confirms our thoughts that the death of bee colonies across North America is a very complex issue. It includes varroa mites, colony feeding, and other management and environmental relationships.

We have asked that the Government of Canada invest in research to understand bee health, bee colony foraging, and all the interactions that exist with farmers and the environment that they work in.

Thank you.

The Chair: Just for the advice of the committee, we do have copies of that presentation. We're just getting it translated and printed to circulate before the end of the meeting.

Mr. Petelle, welcome.

Mr. Pierre Petelle (Vice-President, Chemistry, CropLife Canada): Thank you, Mr. Chair and members of the committee.

Thank you for the opportunity to meet with you today about the important topic of pollinator health.

[Translation]

My name is Pierre Petelle. I am the vice-president of CropLife Canada's chemistry sector. We represent the developers, manufacturers and distributors of pest control products and plant biotechnologies.

[English]

With me this morning is Dr. Maria Trainer, who is the managing director of regulatory affairs for CropLife Canada.

I'll be providing our remarks on behalf of CropLife this morning.

CropLife Canada's member companies are committed to protecting human health and the environment. Our technologies are beneficial, not only to Canadian farmers, but also to consumers who benefit from lower food costs, better environmental quality, and a more prosperous economy.

Agriculture has never been more environmentally sustainable, in large part due to the innovative products that our industry has developed. For example, we help farmers grow more food on less land, greatly increasing their efficiency. Our industry's products also improve soil conservation, reduce water use, and generate fewer greenhouse gases. We are proud of these contributions.

Aside from our moral obligation to protect the environment, of which pollinators are an integral and vital component, our industry also has a vested interest in protecting bees. Without sufficient pollination, many of the crops that our products are designed to protect simply wouldn't exist. The success of modern agriculture

depends on bees, and we are fully committed to protecting and improving pollinator health.

This committee has no doubt seen PMRA's preliminary analysis of the honeybee incidents in southern Ontario last spring. The analysis did indicate that insecticides used on treated corn were a contributing factor to the losses. Before I comment on PMRA's report and the actions that our industry has taken since last spring, I'd like to talk about seed treatments in general. John has already covered some of that, but I'd like to cover a little more on what they are, why they're used, and how they can represent a significant environmental improvement over the alternative.

Insecticide-treated seed has improved the precision of insecticide application by applying a very small amount of product directly to the seed, where it will provide the greatest protection, namely, on the seed and in the ground. This approach to pesticide application means the product is placed where beneficial insects, like honeybees and other non-target organisms, are less likely to come into contact with it.

Seed treatments have co-existed very well with pollinators in many regions of the country for quite some time. For example, canola, one of Canada's biggest success stories, is planted on more than 21 million acres in western Canada. Virtually all of this crop, which is very attractive to bees, is treated with a neonic seed treatment, and bee health in that region remains strong. Indeed, we have heard from many beekeepers who tell us that seed treatment products are a significant improvement over past practices when it comes to protecting bee health.

In addition to reducing potential pollinator exposure, seed treatments have also helped farmers by providing stronger, more resilient crops and higher yields. Restrictions of any sort on these products would force growers to rely on other forms of pest control products, including foliar sprays, which could increase the risk of exposure of non-target organisms, such as bees.

Pesticides are an essential tool to enable our growers to feed the growing world population in an environmentally responsible fashion. Without pesticides, the world would lose at least 40% of its food supply; for certain crops, losses could be up to 80%. The impact on the world's food supply would be simply catastrophic.

In Canada, we've been largely shielded from the significant bee decline seen elsewhere around the world. Indeed, according to StatsCan data, our honeybee numbers are actually increasing. However, we must not be complacent. Bee health is complex, just like human health, and according to experts, which I don't profess to be, it's impacted by a variety of interacting variables, including parasites, diseases, and other stress factors, such as habitat loss, genetic weakness, and environmental exposures.

Given our industry's clear dependence on bees, all of these factors are of concern to us. This complexity extends to the circumstances of last spring. The record-setting warm temperatures we had last year, windy weather, and unique spring conditions led to an increase in dust that released during corn planting. In addition, the well-above-normal heat also led to weeds emerging earlier than usual and bees foraging while the corn was being planted.

The reality is that neonic-treated corn has been planted in Ontario and elsewhere for the past 10 years without similar incidents.

• (1110)

I mentioned earlier that our industry has taken action since last spring. I'd like to elaborate a little bit on that now.

Some of the steps our industry has taken over the last year include developing a comprehensive set of best-management practices for the planting of insecticide-treated corn seeds and actively communicating this information to growers. We've also been establishing better communications and positive relationships between beekeepers, growers, and our industry to help protect pollinators and find solutions to ongoing pollinator health issues. Many of our member companies have been investing in new hive health products, which are themselves pesticides, to protect bees from potentially devastating hive pests such as the varroa mite.

One thing that is often overlooked is that pesticides are one of the most heavily regulated substances on the market. Health Canada's PMRA is one of the most respected regulatory bodies in the world, one that is routinely used as an example by other nations seeking to strengthen and modernize their regulatory frameworks. PMRA thoroughly assesses all pest control products before they are approved for use and sale in Canada. Part of this assessment includes a rigorous evaluation of the potential impact on wildlife and other non-target organisms.

While neonicotinoids are toxic to insects, they have a very low toxicity for most wildlife. In addition, the targeted nature of seed treatment technology minimizes the exposure to beneficial insects such as pollinators. At present, some neonicotinoids are undergoing a re-evaluation. This is a routine part of the PMRA process designed to ensure that all the latest science is considered when looking at previously approved products. We support Canada's rigorous regulatory system, including the regular re-evaluation of approved products. It ensures that regulatory decisions are continually evaluated against the best available science, and it ensures that Canadians can have the confidence in the innovations our industry develops.

Finally, some will no doubt point out that the European Commission recently announced its intention to ban certain neonicotinoid uses effective December 1 of this year. It's important to note that this was a split decision in Europe, with many member states voting against the recommendation. It's also worth noting that the commission based its recommendation on a report from the European Food Safety Authority, or EFSA, that was inconclusive and based on perceived data gaps that could have been addressed. For example, they did not take into account independent monitoring studies in a number of EU member states that clearly documented no impact on bee populations from neonicotinoid insecticides when used properly, nor did they consider real-world experience from

other regions, including Canada. Nonetheless, they have still chosen to adopt an approach that represents a fundamental misapplication of the precautionary principle.

This decision sends a very negative signal to innovative R and D companies that rely on predictable science-based regulatory decisions. We view this as yet another example of politics trumping science in Europe, which has now become the world's largest food importer. This decision handcuffs farmers, will drive European food prices up even further, and will do absolutely nothing to improve pollinator health in Europe.

Pesticides and pollinators both play critical roles in agriculture. Both are essential for successful and sustainable food production to feed an ever-growing world population. Canada's plant science industry is committed to working with beekeepers, growers, and all interested parties to help improve and maintain pollinator health in Canada, both today and for generations to come.

Thank you very much for your attention.

● (1115)

The Chair: Thank you.

Mr. Allen.

Oh, sorry, Ms. Brosseau.

Ms. Ruth Ellen Brosseau (Berthier—Maskinongé, NDP): It's okay. Thank you, Chair.

I'd like to thank our witnesses. I don't think I've ever seen a full house like this.

This is a very important subject. I remember we had witnesses in last year, and it was a very moving and memorable meeting.

I'm going to pose a question in French.

[Translation]

I spoke with people from the Fédération des apiculteurs du Québec. I think it is important that their opinion be expressed on the matter, as well.

As in Ontario, there have been similar cases in Quebec since 2009. There were fewer cases, but they are the same, and they were reported in the spring. The federation feels that it must use any means possible to inform farmers of the risks of these insecticides to bees and other pollinators. However, it is a David and Goliath struggle. It is very difficult to set in motion, and it is complex.

Furthermore, in light of the recent decisions of the European Union and the position taken by the Ontario Beekeepers' Association late last week, the Fédération des apiculteurs du Québec's board of directors met last night and passed a resolution asking that the use of neonicotinoids be banned in agriculture in Canada.

I would like to know what your opinion is with respect to their recent resolution.

[English]

Mr. Pierre Petelle: I wasn't aware that the Quebec federation had passed a resolution also calling for a ban.

[Translation]

Would you like me to answer in French? [English]

Ms. Ruth Ellen Brosseau: No. We can do both.

It was just last night they passed it.

Mr. Pierre Petelle: This is news to me, and it's very unfortunate, because we have been working very closely with that group and many other stakeholders in Quebec at a round table. We felt we were making progress with that group, sharing information, with constructive dialogue, and, as you started with your point, helping to make sure growers and beekeepers are aware of each other's operations, better informing growers about the use of seed treatments and these insecticides on the treated seed. It's very unfortunate that they have now moved to a position of calling for a ban.

Bans are not the answer with this issue. It's a complex issue. We need to work together. We need to move forward in a collaborative way.

Ms. Ruth Ellen Brosseau: I think it was also mentioned that communication is very important, and cooperation and understanding from the beekeepers and industry, because bees have such an important role. As you said, the loss of bees is very catastrophic.

Have there been any more round tables with industry and beekeepers? You said there was cooperation, but have there been actual round tables recently?

Mr. Pierre Petelle: CropLife organized two round tables in collaboration with the Canadian Honey Council, one in October and one just recently in March, bringing together all the various stakeholders.

At the last session we had the equipment manufacturers, we had a number of different grower groups, from canola to grain farmers, and we had government officials as well, both from PMRA and Agriculture Canada. We had a very useful and productive day.

At the end of that session we asked the stakeholders around the table if there was value in continuing that sort of exercise. Was there value in coming together to discuss this issue? Unanimously the response was yes, they would like to see the forum continued.

(1120)

Ms. Ruth Ellen Brosseau: What technical improvements has the pesticide industry recently developed to further reduce the release of dust?

Mr. Pierre Petelle: The industry has been working since these products were developed to continually improve the actual technology of how to adhere the chemical to the seed—the various polymers being used. That's an ongoing process each of the registrants are continually working with to try to make sure that product stays on there.

The other component that has been worked on is...quite often with this equipment they use a talc or graphite as a lubricant, so the seeds continue to flow through the seeding equipment. That talc obviously is very fine and can be released in dust in these pneumatic planters. Our industry has been working on a talc replacement product, which is a polymer that reduces the dust by over 90% versus talc. Right now, this year, it's being tested on large acreages throughout Ontario and Quebec in a variety of different seeding equipment. If the results are favourable, and the early results are very good, this would replace the talc currently being used and therefore further minimize dust.

The Chair: Thank you.

Mr. Lemieux.

Mr. Pierre Lemieux (Glengarry—Prescott—Russell, CPC): Thanks very much, Chair.

And thank you to our witnesses for their presence here today. This is indeed an important topic, which is why we're studying it. I noticed a number of articles in the media, which also shows it's important.

I think one of the messages, though, that can inadvertently be conveyed, sometimes through articles, etc., is that somehow the farmers don't really care about the bees. It's the bees versus the farmers. Right? If only the farmers cared about bees, this situation would change.

Let me ask a question. Because I'm limited in time, I'll ask for short answers. How do bees benefit crop farmers, and do farmers have a vested interest in a healthy bee population?

Let me start with John and then Pierre. Then I have two other questions I would like to ask.

Mr. John Cowan: Obviously bees are a number one pollinator, so depending on the crop—certainly the fruit crops, the vegetable crops, flowering crops. When you think of a pretty flower, bees are critical in pollinating those crops, which is basically the transfer that creates yield. So they are critical to us.

Do we have a vested interest? I would go back. The Grain Farmers of Ontario, at our semi-annual meeting in March, actually organized a panel, brought in experts, not just from Ontario, OMAF, but certainly the federal government, the PMRA, and also individuals from the United States, with their experience at Purdue University, to address our delegates and inform them about what was going on.

We have worked with the PMRA to establish best management practices.

We've written four articles in our magazine addressing to our farmers the considerations they should take when planting their crop, and we have also posted those best management practices on our website. We've instructed our elected delegates to speak to this every time they have a farmer meeting.

So do we have a vested interest? Absolutely. Are we taking steps in terms of best management practices? Yes, we are.

Mr. Pierre Lemieux: I'm not surprised to hear that.

Let me ask a second question about moratoriums and bans. Certainly I, and our government, believe that those types of decisions—moratoriums and bans—must be based on sound science. If they're not based on sound science, what are they based on? They can be based on a wide variety of different issues, but sound science must be a criterion.

Let me ask a question to you, Pierre. Is the science on this conclusive?

Mr. Pierre Petelle: The science on pesticides generally is very robust. The difference between a lot of chemicals on the market is that with pesticides there is a very detailed data set that helps regulators make very informed decisions. The science on neonics, the weight of evidence of all the science out there, is very clear with these products in terms of a lethal or sublethal or chronic effect; it is not a route of exposure of concern.

On the particular issue of dust being released during planting, we've acknowledged that and have addressed it. I think moving forward, that is not going to be an issue for pollinators.

From our industry's perspective, in order to invest in new technologies, it can be upwards of \$250 million and 10 years' worth of commitment to bring in a new active ingredient to market. In terms of the importance of having predictable science-based regulations, we can't emphasize that enough. That investment depends on that predictability and that science-based nature.

• (1125)

Mr. Pierre Lemieux: Good.

I appreciate the comment you made that although Europe has decided to ban certain neonicotinoids, they were very divided. It wasn't necessarily based on science, but on other factors that came into play.

The last question I want to ask is to John.

What impact would a ban or a moratorium have on farmers? I'm asking because, again, when you read some of the articles...you would think that if farmers just stopped, they'd fix the problem.

There's really no discussion on what the real impact would be on farmers. Could you quickly quantify what those impacts would be if there were a ban or a moratorium? How would this affect the farmer?

Mr. John Cowan: Using Ontario statistics, the average yield was 149 bushels to the acre in the province of Ontario this past year. It was 151 bushels the year before. If you took a 150-bushel average in corn and you talked about a 10% stand loss, that would be the equivalent of 15 bushels to the acre. At current prices that comes out to almost a \$100-per-acre loss to a farmer. For an average 500-acre corn farmer—there are smaller operations and many that are much larger—that would equate to a \$50,000 loss for that farmer.

I'd also like to make a comment about Europe. I've read and actually been sent a lot of e-mails saying that if they banned it in Europe it must be the right thing to do. To make a direct comparison between Canadian farming and European farming is very difficult, because of the size of the fields they work in and the equipment they use. Another thing I'd like to point out is that they are one of the world's largest importers of food now. They also have the most subsidized farmers in the world. Basically, a farmer gets paid for

doing what the EU or their national government determines would be appropriate.

That's not the case here. A \$50,000 loss for a farmer here comes right off his bottom line. We want to do the right thing, but there aren't a lot of farmers who can afford to forego that income.

The Chair: Thank you.

Mr. Valeriote.

Mr. Frank Valeriote (Guelph, Lib.): I think it's fair to say that to a certain degree we're pretty conflicted around here about what's really happening. We're trying to probe and see exactly what the sound science is. I've seen nothing that says unequivocally that it's related to the use of neonicotinoids, notwithstanding the EU's position on it.

Maria, I'm told that you might be the scientific expert on this.

Is it possible that we kind of hit the perfect storm last year, with a combination of what they say is the cause: the parasitic varroa mite, the viruses, the bacteria, the weather, poor nutrition and genetics, and maybe partially the pesticides that are being used? Is that a possibility?

Dr. Maria Trainer (Managing Director, Regulatory Affairs, CropLife Canada): I think that's exactly right. Last year we had one of the warmest springs on record and record bee populations coming out of the winter. Corn was going in early. The flowering weeds were up early. As you said, it was a perfect storm of contributing factors that likely all came together to create a very unusual set of circumstances.

Mr. Frank Valeriote: I hear that it's been out there for 10 years. It's not happening in Australia, it's not happening in South America, and I understand that it's not a major problem in western Canada. Yet, we saw the drama unfold last year, as Ruth described.

I'm concerned about two more things, if you can talk about them.

First, the real efforts to discuss this with the apiarists, between the pesticide industry and the beekeepers—how much communication has gone on?

Second, with regard to the application of other innovations, and I am talking about the technology used to apply.... I don't mean applying the polymers to the seed. I'm talking about the equipment that's used to keep the dust down. What effort is being made there to accommodate, to the degree that we can, the beekeepers? With the knowledge that farmers do care, and that they are applying the measures that they're expected to apply to reduce the risk, what effort is being made in that regard?

Dr. Maria Trainer: First of all, with respect to communication with beekeepers, as a national organization we've reached out to the Canadian Honey Council, the national body that represents beekeepers across Canada. We've tried to work very closely with them throughout the last 12 months. I think the success of that is demonstrated in the two round tables we've held. They've been very successful. We're reasonably impressed with them for bringing that large a number of stakeholders together to address an issue in that kind of timeframe.

For us, it's broader than just the issue of pesticides. There's the broader issue of bee health, which is a concern because our industry is so inherently dependent on pollinators. The importance of protecting and promoting their health in general is very important to us. From that regard, we've had a very productive dialogue that we envision continuing indefinitely. We certainly hope to build that relationship across the country, as well as at the national level.

• (1130)

Mr. Frank Valeriote: The other question was about technology application.

Mr. Pierre Petelle: We have had some dialogue with the Ontario Beekeepers' Association, especially early last year. More recently, we've made an overture to sit down again and have more dialogue with them, between our industry and the OBA directly. We haven't heard back yet, but we're still hoping that will be the case.

In terms of the equipment manufacturers, I don't want to speak for them, but what they've told us is that they are working on some very specific ISO standards, some international standards, that say all equipment after a certain point will have to meet certain criteria for dust generation. That's being worked on by the entire industry, so that'll be across the board. They're willing participants of this talc replacement work that's going on throughout North America, to make sure that this lubricant alternative works in all the different types of seeders that are out there.

Mr. Frank Valeriote: Is there an opportunity for farmers to seed at a specific time, and under perfect conditions, so that they could appease the beekeepers somewhat? Or is that unrealistic when we're talking about farming?

John, perhaps you can answer that?

Mr. John Cowan: I would suggest that certainly we can be aware. The first thing is communication between the local farmer and a beekeeper in his area, so the farmer knows exactly where the aviary is or where the hives are located, because they do move them around during the season. During the planting time, we need to be aware of it so that we can think about it. If a farmer has 10 fields to plant and pays attention to which way the wind is blowing, he might choose to go to one field as opposed to another that has hives around it, if the wind is out of the east on that particular day. He can take those things into account. Can a farmer decide he's not going to plant today? No. It's critical that he puts his crop in the ground when the soil is ready to receive the seed. Our manufacturing plant is out of our control in terms of what we do.

The other thing I want to mention, in terms of equipment, is that not all equipment has this problem. First of all, the seed treatment is on the seed, and adherence to the seed is one of the issues, but not all equipment is a pneumatic planter. The seed is planted four to eight

centimetres deep. Bees do not burrow, so it is really not the treatment that's on the seed when it's in the ground; it's the dust that comes from it, which is where the pneumatic planters come in. The original pneumatic planters actually had some guards when they exhausted out of the sides, and they've changed those. The new planters they have now exhaust toward the soil and are about 18 inches off the soil.

Certainly, the equipment manufacturers have made some improvements already. Farmers quite often will change equipment that works better for themselves. A planter is one of the pieces of equipment that it's most difficult to change. We put an exact number of seeds per acre in the soil, and if we change the equipment, it changes the equation on how that piece of equipment works. When we change the number of seeds in the soil, we certainly change what we did for our fertility programs, what we did for our expected yield goals. Those are all things we have to take into account. And the planter is the most difficult equipment to modify.

The Chair: Thank you.

Mr. Richards.

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

I have a couple of questions for each of you, Mr. Petelle and Mr. Cowan, so I hope we'll have time for both sets.

I'll start with you, Mr. Petelle. As I understand the situation, this certainly isn't a new issue. I understand there have been beekeepers reporting higher than average hive losses for a decade or more.

I know that quantifying something like this can be difficult, but could you give us a bit of a sense of your perspective? Is there an accurate assessment of the extent of the losses, what that might be?

● (1135)

Mr. Pierre Petelle: I think you have some actual beekeeper witnesses later that might be more qualified to answer this, but simply based on what we have as public information...Statistics Canada does track the number of colonies in Canada. Other than a few dips for a number of reasons, when the borders were closed, etc.... In terms of the trend, it's been generally trending upward. We took that trend line for Alberta specifically and superimposed the trend line for canola acreage, and those two lines are almost parallel. As the acreage of canola increased, the number of colonies also increased. For us to believe that neonics are having a significant impact on the chronic health of bees...the numbers don't match up.

Mr. Blake Richards: As far as some of the explanations out there, there are a number of them. I've heard a whole variety of explanations. Mr. Cowan mentioned in his opening remarks that everyone wants to have the finest silver bullet, which he asserted didn't exist.

I want to hear your opinion. Do you believe there is one particular factor, or do you think, as seems quite likely, a combination of factors leads to the losses?

Mr. Pierre Petelle: Again, I don't profess to be a bee expert, but John mentioned a study. The U.S. Department of Agriculture just released a fairly significant paper, and in it they're very clear that this is multifactorial. Pesticides are one very small component. In fact, I think they said it's one of the least significant components, and that hive health through nutrition could probably solve most of the issues they're experiencing, at least in the U.S.

Mr. Blake Richards: Thank you.

Mr. Cowan, I'll go to you now.

I know that the Grain Farmers of Ontario have been out in front on this issue. Thank you for that. I think you've been doing what you can to try to provide farmers with suggestions to minimize the threats to bees, particularly from short-term exposure to elevated doses of an insecticide, etc.

Can you tell the committee a little more about some of the steps you've taken or some of the things you've done to try to inform farmers about some of the basic things, like maybe avoiding seeding on a particularly windy day, for example? Maybe you can just give us a bit of a sense of some of the initiatives you've been taking.

Mr. John Cowan: We worked with the PMRA in putting together what we would call best management practices for corn seeding. The head entomologist for OMAF was involved in putting these together as well.

In those best management practices, some things seem quite simple, but the reality is that when you go to the field and empty a bag of seed into your planter, you don't shake out the bag so that the dust that might exist in the bag gets into the environment.

Other things include being aware of where the hives are around your field. It's critical. Again, it's about cooperation and discussions with beekeepers. Another is being aware of which way the wind is blowing. As I mentioned, it's probably not in the realm of practical farming to say "don't plant on certain days because it's too windy", because in our manufacturing plant, our window for planting is sometimes limited and we have to do it.

I believe there are 10 different best management practices. I don't have them listed with me right now, but we've put that list on our website and have published it in our magazine. We talk to the press on a regular basis to try to get the message out. Again, we had a full delegates session of our elected delegates and asked them to take the message back to their members in terms of each county or district that we have across Ontario.

The Chair: Thank you.

Time flies, Mr. Richards.

Madame Raynault.

[Translation]

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

My question has to do with the reason for the loss of bees and the Health Canada report.

The purpose of the Health Canada report, released on April 8, 2013, was to outline "measures to reduce risk to pollinators

from exposure to dust generated during planting of insecticide treated seed."

Do you think such measures are necessary? Perhaps you have already answered this previously, but it would be helpful if you could come back to this issue for the benefit of people listening.

● (1140)

[English]

Mr. John Cowan: In terms of seed treatments, as I mentioned, lindane was taken off the market. Diazinon Lindane is a product farmers used up until 2004. Most of it was taken off the market in about 2001. The current insecticides that we have on our seeds are safer to farmers than the D and L, and probably more effective than D and L.

Foliar sprays, which might be used, don't address the seed maggot, wireworm, and grubs that exist in the soil along with what these insecticides are trying to actually help us save. I'm not aware of other products that are available to farmers.

[Translation]

Ms. Francine Raynault: Is any research under way to obtain another product to replace that one?

[English]

Mr. Pierre Petelle: In terms of research into new products, that's an ongoing initiative. Especially our R and D member companies are continually looking for new solutions for a variety of different pest pressures that growers face. It's not just to replace products that are currently on the market; it is to make sure there are enough different modes of action out there to delay resistance development, for example, if you're always using the same product.

The companies are always investing in new technologies. I stated earlier the importance of a science-based, predictable regulatory system. I can't stress that enough. That innovation and those investment dollars depend on that predictability and a science-based regulatory system in order to deliver solutions to growers.

[Translation]

Ms. Francine Raynault: According to the Health Canada report, the date and location of bee losses, between April and June 2012, have coincided with corn planting in the major producing areas in the provinces. Neonicotinoid insecticide residue has been detected in about 70% of dead bees and in 80% of Ontario apiaries where dead bee samples have been collected and analyzed.

Do you think, in this case, that there is a direct correlation between the bee losses and the insecticide used? [English]

Mr. Pierre Petelle: With the acute loses that were seen last year in Ontario, PMRA did some analysis and did find levels of neonic insecticide in some of the dead bee samples. Clearly the insecticide was in those bees. It was detected. Was it a contributing factor in their deaths? The conclusion from PMRA is that, yes, it was likely a contributing factor in the deaths.

We're not shying away from that. What we're saying is that with the solutions we have in place, the best measurement practices we worked on with growers and the regulators, and the new innovations that are coming in terms of talc replacements and the coatings, the polymers, that particular route of exposure for bees in the future should not be a concern.

Mr. John Cowan: Can I just add to that? I believe Mr. Valeriote mentioned the perfect storm. The year 2012 was very unusual. Where I come from, the southwest part of the province, virtually all of the corn was planted in April, which is not always usual because I can tell you that in 2011 we never started planting corn until June. So my determination is that May was a bad month to plant for the last two years.

With that early planting, we also had bees foraging earlier than normal. We also had probably a poor supply of food because of their early foraging, and—again, this is just observation—we also had a killing frost in May, which again was unusual in terms of bees being out early. So there were a lot of things that came together, and I believe the term "perfect storm" is quite appropriate for 2012.

• (1145)

The Chair: Thank you. Merci.

Go ahead, Mr. Payne.

Mr. LaVar Payne (Medicine Hat, CPC): Thank you, Mr. Chair.

My question is through you, Chair, to the witnesses. Thank you for coming today. It's an important study that we're doing. I'm not sure who wants to answer this, but as I understand it, the neonics were approved by PMRA back in the nineties. Is that correct?

Mr. Pierre Petelle: Yes.

Mr. John Cowan: Between 1995 and 2003. The current products on the market were in that timeframe.

Mr. LaVar Payne: Okay.

Mr. Petelle, you did talk about an increase in canola planting in the prairie provinces. I wasn't sure if you were also talking about an increase in the bee colonies as running parallel.

Mr. Pierre Petelle: Yes.Mr. LaVar Payne: Okay.

Let me ask this question then. In terms of the talc that you talked about, how long has that been used?

Mr. Pierre Petelle: I think as long as pneumatic planters have been around it's been used as a lubricant to make sure that seed gets delivered right in the proper—

Mr. LaVar Payne: If we talk about that...my question is this. In terms of the increase in canola and the bee colony increases, did you see any increase in deaths in the bee colonies in the prairies through that timeframe?

Mr. Pierre Petelle: No. Again, I think you have some western beekeepers speaking to you later, but the colony numbers increased as the acreage did.

The other thing I'd like to point out is that in our industry many of our member companies are into canola seed production as well, and canola seed production relies on pollination services to pollinate the plant. So some of our member companies are the biggest customers for commercial beekeeping services.

Going back to my vested interest comment earlier, even in the very practical matter of producing the seed we sell to the growers, we also rely directly on pollination services in the case of canola.

Mr. LaVar Payne: I have another question, and maybe Mr. Cowan will be answering this; I'm not sure. In terms of the neonics use in Ontario or Quebec, how long has that been occurring, and is there any kind of correlation that you've seen in terms of the bee deaths? I'm sure it wasn't conclusive from PMRA.

Mr. John Cowan: Neonics have been used for between 10 and 13 years in the province of Ontario, or since Diazinon Lindane officially came off the market in 2004. As I said, most of it was probably off the market by 2001. We've been using neonics since that time, in both Ontario and Ouebec.

There is seed available from seed companies. Actually, I checked with the company in my hometown on the weekend as to whether they make totally untreated seed available, and they do. They told me that the ordering or the uptake from farmers who would want untreated seed was less than 1% of their seed orders.

It is very common practice, and what we would consider a necessary part of our business decisions in terms of planning our crop.

Mr. LaVar Payne: In terms of the pesticides and the polymer you're using to replace the talc, I understand there's a fair amount of acreage, but if there weren't that pesticide on the seed, I think you mentioned some percentage of crops that would be a whole lot less than what's currently being handled. I didn't actually get a no to that, so I'm wondering if you could just review that for me.

Mr. John Cowan: We've worked with OMAF on corn very specifically. I'm not talking about canola. For corn, they've estimated losses of anywhere from 3 to 20 bushels to the acre without the insecticide, depending on the populations of wireworm, seed maggot, and white grub in the soils.

If we took an average—and when talking to our members, they talk about a 10% stand loss—a 10% stand loss would equate to about \$100 an acre. If you multiply that by 2.3 million acres, it would be \$230 million, and that would be the Ontario number.

Mr. LaVar Payne: Mr. Cowan, you also talked about some research you're supporting. I'm wondering if you could give us a little more information on that research. Has it started? Who is involved? What's the timeframe? Do you have a cost estimate for that study?

● (1150)

Mr. John Cowan: Yes. GFO is supporting it. I mentioned our partners in that, but basically the research is being run by Tracey Baute, an entomologist with the Ontario Ministry of Agriculture and Food, and Dr. Art Schaafsma, who is with the University of Guelph. They are overseeing this research. Certainly it has started, because I've consulted with them and helped them find corn farmers and beekeepers and have put them in touch in terms of doing it. This is practical field research; it's not exclusively lab research.

Basically, we're determining the presence of bees and flowering plants in and around cornfields, and we're doing a measurement there, as well as determining the time of corn planting and how pollinator exposure to pesticide-contaminated dust can be reduced, so we're looking at the equipment. Also, we're determining the role of the seed lubricants—talc was mentioned, and certainly graphite as well—in the production of pesticide contamination and dust during corn planting. We're trying to measure a number of factors and do it in the field, in a practical farming application area.

With OMAF, the Agricultural Adaptation Council, and a partner out of the United States that is working with us, the Pollinator Partnership, we've put together \$340,000 that is dedicated over the next two years to that study.

The Chair: Thank you.

Mr. LaVar Payne: I thank the witnesses.

The Chair: Mr. Allen.

Mr. Malcolm Allen (Welland, NDP): Thank you, Chair.

Thank you to the witnesses.

Mr. Petelle, let me say this up front. We recognize that for a number of years—and to Mr. Cowan as well, because Mr. Cowan and I have talked about this before—there didn't seem to be an issue.

Mr. Valeriote suggested a perfect storm. Madam Trainer, you suggested maybe that's an accurate description. But to my friends across the way, we understand that this particular piece.... Mr. Petelle, you said you understood that neonic was a contributing factor last year—to whatever happened to colonies in Ontario specifically, whether it be because of the weather or the dust and all the rest of the things.

The thing I really want to talk about is this sense of.... In municipal governance, we used to call it the 100-year storm, so in everything we did we planned for that one storm. We stopped planning for 100-year storms about six or seven years ago. We now plan for the one storm in 250 years. Last year's perfect storm may be an indicator that there are more of those to come, because that's not one in 100 years.

Notwithstanding all of that, that it occurred, can you help me understand, Mr. Cowan and Mr. Petelle, how we get all of these groups who have started the discussion, by the way, which is very positive and will include equipment manufacturers as well.... I mean, farmers have invested in equipment. Mr. Cowan has articulated that about seed planters. You don't run out and buy a seed planter tomorrow when you bought one only a few years ago. How do we bring all of these groups together over the longer term so that when the next one comes—because it will—we're more prepared than we were last time to address it from every angle?

The beekeepers themselves, who have a role to play, by the way—I'm not leaving them out of the equation, that they can simply go about doing what they've done in the same way forever—need to do things differently as well. How do you see all of these tentacles coming together to build something that helps protect us from the collapse we saw last year? We're only going to talk about this one piece, but I recognize and admit that there are multifaceted problems in the aviary; we accept that as a fact. But this is the piece where you intersect. How do we continue to work on all of those facets to try to at least eliminate that potential?

Mr. Pierre Petelle: Even before the spring of 2012, back in early 2011, our industry recognized that one of the partners, one of the stakeholders, that we didn't have enough dialogue or interaction with was the beekeeping community. We have very good relationships with all the major grower groups. We understand each other. We work on projects together. It wasn't early enough, maybe, but we said in 2011 that we needed to be more proactive and reach out to that beekeeping community. The spring of 2012 happened, but it didn't deter us. The goal for this round table we talked about is really what you're talking about: to get all the partners around the table.

In March, we really did have all the partners around the table. We had the equipment manufacturers there, we had all the grower groups, who either rely on pollination services or have an interest in this issue, we had the government there, and we had our industry there. It made for a very fruitful and positive dialogue. It was an opportunity for the beekeepers, for the growers, to hear from the equipment manufacturers precisely what they're working on and what they're doing. It was an opportunity for them to hear directly from our member companies, not only as an industry association but as the actual member companies, to talk about some of the specific work they're doing in terms of bee health and hive health products.

I think that's the kind of dialogue we want to see continue. I think that's where we're going to get constructive dialogue and move forward on this issue.

● (1155)

Mr. Malcolm Allen: I'll add to that, Mr. Cowan, and I guess I'm going to run out of time.

The other thing is that this is more of a voluntary piece, if you will, the groups coming together. Some of it I think came out of this committee, in the sense of suggestions, that finally we're talking in a more concrete way, if you will.

Obviously, we're not looking to mandate this. Is there a way to solidify this, to continue, because bees are so important to farmers? Mr. Cowan is the first to admit.... He came here and said bees are important to us. We want bees. We need bees. So it's not about farmers versus beekeepers. This is not true at all. This is a symbiotic relationship. The issue is that we don't need to have that symbiosis turn into an antagonistic one that destroys the thing that we very much need.

I'm wondering if there's a way to somehow make this a firmer piece, so that this continues, so that we can start to look in a proactive way at potential things that could happen down the road.

Mr. Cowan talked about what happened with Lindane. It took years to figure that out. We've now realized with this neonic that if we plant in dry, windy conditions there could be an outcome. Now we've learned another lesson. It's like life-learning lessons. But Mr. Cowan has pointed out that it's not as easy for farmers to say, "I'm not planting today."

How do we keep the discussion going and keep each other at the table, so we can help each other really come together, so that all parties aren't adversely affected, or at least it's minimized? How do we continue to do that?

I don't know if Mr. Cowan wants to take a crack at that or not.

Mr. John Cowan: First of all, I think Canada has done a great job. The PMRA has done a great job in making the science-based regulatory system we have here. The way we do that is through continuous research and continuous investment in understanding the technology and the products we're working with.

Again, I'll go back to my opening comments. I'd like to point out that the second-largest corn-producing province in Canada is Quebec. The Grain Farmers of Ontario are working very closely with the FPCCQ, which is the Quebec grower group that represents corn and grain production. So we're investing in research.

I ask that the federal government also consider beyond.... We're trying to focus research on the parts that we are involved in. I think there is other bee health research that needs to take place. Again, the silver bullet is not the answer. It's a very complex bee/environment/farmer issue, and we need to look at other areas where an investment in research would benefit all of us.

This is a general society thing, to tell you the truth, because bees are important to all of us. We need investment in research on bee health in the colonies—again, varroa mites, genetic predisposition or the importance of how widely spread the genetics are in the bee colonies, feeding. There's just a multitude of things, and I think we need to invest in those.

The Chair: Thank you.

With that, I'll thank our guests for being here. We appreciate your time, and we look forward to more conversations in this regard.

We are going to take a two-minute break for our next guest to join us at the table.

• (1200) _____ (Pause) _____

● (1200)

The Chair: Joining us for the second hour, from the Alberta Beekeepers, is Kevin Nixon. He is the director of the Canadian Honey Council.

From the Alberta Beekeepers Commission, we have Grant Hicks, president.

You've been here and you've seen the previous presenters. You have up to 10 minutes to present, and then we'll move to questions from the floor.

Mr. Hicks, would you like to start us off?

Mr. Grant Hicks (President, Alberta Beekeepers Commission): Thank you, committee, for inviting us to your meeting today and giving us an opportunity to share the story of beekeeping in western Canada. That's how I'll approach it.

In our particular operation, we are based in the Peace River district, which is not a great place for a honeybee to spend the winter. We move to the Okanagan Valley for the winter. I've been down there more or less continuously for the last three months. We're just making the move back to Peace River this week. I left my boys to do the work and I came to Ottawa. Having said that, I don't have a whole lot of resources with me, so I'll just be telling the story.

Part of the issue as it pertains to pesticides in western Canada is that we have not seen huge losses that can be attributed to pesticides. Losses aren't even cyclical. They seem to more or less follow the period of time that a miticide is effective. We have varroa mites in our colonies, and as long as the miticide of the day is working, our winter losses are acceptable. Typically, the way we find out that the miticides are no longer working is with massive winter losses.

In terms of the pesticide being a killer of bees in western Canada, that probably would be inappropriate to say. The sublethal effects and that sort of thing have yet to be determined, but as we move forward now, we're pretty happy with the use of neonics as a seed treatment on canola.

The other issue that seems to rack our industry is lack of training. It seems that where we have new producers or young producers, they have trouble getting their bees through the winner.

The other major factor that I would bring to you is nutrition. The natural range of honeybees is southern California, southern Utah, New Mexico, Texas, and probably in that line across to south Carolina. We're considerably out of the natural range of these insects. The wintering is a continuous battle, and getting proper nutrition I find is critical. We don't have a lot of data out there that deals with amino acid, the vitamin regimes, and these minor nutrient levels that may or may not be useful in the survival of bees. I personally have played around with it, but I'm not a scientist. I find that a vitamin package and an amino acid package tend to be useful in offsetting winter losses. There's just a world of work that needs to be done around bee nutrition.

Thank you for your time.

• (1205)

The Chair: Go ahead, Mr. Nixon.

Mr. Kevin Nixon (Director, Canadian Honey Council, Alberta Beekeepers): Thank you, Mr. Chairman and committee, for having me. I am the Alberta delegate to the Canadian Honey Council, and I have been chairing a bee incident committee for the Honey Council this past year, which was formed at the request of the Ontario Beekeepers' Association after the incidents were reported last year.

I sent out a document last week—I hope it was received and distributed—about the work the committee has done this past year. I'll go through it and broaden it a little bit and highlight some points.

The purpose of the committee was not only to look at the incidents that happened in Ontario; it was to look at the use of pesticides in general across the country, as there had been incidents reported outside of Ontario with other foliar applications of other products. So the purpose was to look at the broad-range use of chemicals in general and to use the Ontario incidents as a starting point.

The committee established subcommittees to deal with six focus areas. The first area of focus was the process for beekeepers to report suspected bee poisonings, and the second was the process for how the PMRA would deal with the report. We wanted to try to have a standardized way for beekeepers to report and collect samples and have them processed, so that it would be done properly under proper protocol, to allow the information to be distributed to the people who need to know about the reported incidents. Those were sent to PMRA, and I believe you'll be hearing from them in the coming days as well. As far as we understand, they were well received, and action was taken with the recommendations you have in the handout.

The third focus area was analyzing toxicity levels of chemicals and insecticides, and the fourth area was point of contact and where the risks are. In terms of three and four, we felt that if we as the beekeeping industry wanted to comment on the use of and need for chemicals and pesticides, we needed to be informed ourselves as to what they do, what they are, and why they're needed, so that we could have accurate, objective discussions about them. We did have a lot of recommendations come out on the issues. There are areas for both beekeepers and the crop industry to collaborate and learn from each other.

The fifth area of focus was recommendations and best management practices for all stakeholders: beekeepers, the chemical companies, seed companies, the growers, the chemical applicators,

and equipment manufacturers. As we heard earlier, there have been round tables with these stakeholders. Discussion has been good, and in some regions this relationship has happened already and in some regions of the country it hasn't. So there's a lot of room for future relationships and partnerships to be built.

The final subcommittee's focus was on compensation for the loss of bees and production if an incident did occur. This committee is still working on finalizing some recommendations to bring to the board. It's a difficult one to deal with in a way. Provincial administration of agricultural programs varies from province to province, so there's a bit of work to do on that yet. We hope to have that wrapped up very soon.

To come up with these recommendations, the committee did collaborate. We had input from the Grain Growers of Canada, the Grain Farmers of Ontario, CropLife Canada, PMRA, provincial apiarists, and a couple of Ontario beekeepers, among others.

● (1210)

We also had a round table in Quebec City in November, where we were able to talk with a lot of these groups and start some good discussion.

I won't go through the recommendations. There are a lot of them.

As I say, numbers one and two were well received by PMRA. There's a lot of work to do here. It's reasonable. We'll need to prioritize some of them and start getting to work on them.

As we heard from Maria and Pierre and John, there has been some significant work started in dealing with the corn dust situation. The initial work has been fairly positive, I would say, from the other stakeholders. It may not be an immediate fix. I believe there are some trials being run this year. I think they recognize the importance of this, and we appreciate their efforts put into it as well.

I am also a commercial beekeeper from Alberta. About 70% or 80% of my operation does go to pollinate canola for seed production in southern Alberta. I keep some at home for honey production as well. I can entertain questions on that side as well.

A lot of what we're hearing lately in some reports is about sublethal effects. There were the initial kills, the sublethal effects; I think there's some science that needs to be done. I appreciate hearing the comment before that we have a science-based decision-making process. I think that's important. There's definitely room for some science to be done.

That's what I have to share with you.

Thank you.

● (1215)

The Chair: Thank you.

Madame Brosseau.

Ms. Ruth Ellen Brosseau: Thank you, Chair.

I'd like to once again thank our witnesses today. I think we've heard from everybody today that there needs to be continuing talks, continuing work, continuing research. We have to learn from what happened in June and move on, and I think that's kind of what we're doing.

I'm wondering what you guys expect or what you see as the federal government's role in this moving forward, to facilitate...and I don't know if it's just conversations or.... We've heard a lot about the need for investment in research.

I'm just wondering if you can comment on what you see is the government role moving forward.

Mr. Grant Hicks: There are a million unanswered questions. These bugs are so convoluted and interesting that every day when you get to the bee yard it's, "Can this be happening?" Then there are the subtle things that you don't see that are going on, and that's the area where we're going to need some substantive work.

Fortunately, the federal government and our provincial government in Alberta have come together, and we have a new national bee diagnostic lab with the Ag Canada farm at Beaverlodge. We see that as a real player as we move forward in terms of ability to get modern and new instrumentation in there that will be able to find these micro levels of things that might be in our hives.

Bees really are a canary in the mine shaft of the environment. It may be urban pollution, it may be auto pollution; we are putting significant chemicals in our hives as we try to kill a mite off a bee. There are many issues that need to be addressed.

My pet peeve is nutrition. There's a world of work to do there as well.

Ms. Ruth Ellen Brosseau: Do you have any comments on that, Mr. Nixon?

Mr. Kevin Nixon: Yes, I think there's definitely room for some help in research. One thing that keeps coming up is the need for independent research. We as an industry don't have a lot of dollars for research, and some of this research is very costly. There's some research that could be done, or is being done, by some of the chemical companies, and it keeps coming up that people question their credibility. At the end of it all, I would trust that science is science and that the people who are doing it are doing a good job. The good laboratory practices have been demonstrated to us; the chemical industry has shared that with us. Perhaps there's a group out there that doesn't fully understand it, I'm not sure. If it needs to be third-party, independent research, there's some room for help from the federal government in that area, just so it's credible to all people.

Ms. Ruth Ellen Brosseau: I have one more question. I know in the States they have well-documented cases of the colony collapse disorder. In Canada, we don't seem to have as many documented cases, and I think that's part of the problem. We're not investing enough in research, and we're not doing enough follow-up with Statistics Canada. You mentioned nutrition. How are these bees being fed, and how are they being treated? This research is something that we need to do.

Can you comment on why colony collapse is happening in the States, and why it hasn't happened in Canada?

I know every part of Canada is different. You guys have more mites, and in Quebec it was a problem with neonicotinoid pesticides. It's a very complex issue, but I'm wondering if you can elaborate on why it's important to continue with research.

Mr. Grant Hicks: From the research side, it is fairly obvious. But I'd just like to reiterate what Kevin suggested about the role of the federal government in research. We access industry and other stakeholders in the pollination field for research dollars. But it's for grain breeding and variety breeding and that sort of thing. There is a role for independent bodies such as the federal government that could keep an arm's length from industry and thus lend credibility to the independence of the research.

As to the CCD comparison, it is not a disease; it's a collection of symptoms, an evolving collection of symptoms. So it's probably more a technicality than a definitive difference between north of the 49th parallel and south of the 49th parallel. The fact that we have much harsher winters probably sweeps a lot of what might be CCD in the southern U.S. into a wintering loss here in Canada. But I don't really have a good answer for you on that question.

The Chair: Thank you.

Mr. Hoback.

Mr. Randy Hoback (Prince Albert, CPC): Thank you, and my thanks to the witnesses for being here this afternoon.

Mr. Hicks, you were talking about the fascination of working with bees. I actually did that for a couple of years when I went back to the farm in the early 2000s. I thought that for a grain farmer bees would work really well. We gave it a good shot, and it was a good experience for me and my son to work together on it. Bees are fascinating creatures to work with and to nurture. I was lucky. I had Murray Hannigan working next to me. He was a great producer I could learn a lot from, especially about wintering.

We've just gone through eight months of winter in Saskatchewan. We're looking forward to the four months of summer, because spring and fall have disappeared. I'm sure it was a problem getting protein and sugar water out to the hives. How would this affect the bee colonies?

Mr. Kevin Nixon: Well, because he goes to the sunny Okanagan Valley, I'll try....

It's had a huge impact, and there are still numbers to come in.

In Alberta we were in a very similar situation. I started my bees on March 13. It usually takes me 10 days to get around the over 7,000 colonies I run, and it took us over four weeks to get around because of the weather, the snow, and digging out bees to get protein supplements onto them. That stimulates the queen to start laying eggs. From March 13, when we started, we were seeing an average of about a 10% loss, which I was happy with—good news. Six weeks later we started our second round and we're at over a 30% loss now

That four to six weeks is absolutely critical. I've been keeping bees for 17 years and I've never seen a spring dwindle like this. Bees are designed to live for six weeks, so we are asking the ones that hatch out in October or November to live for six months. To live anything past that is really pushing it, and for the queen to start laying eggs again, we have to get that protein to her. Usually when bees are coming out of winter and queens start laying eggs, you get a little bit of an overlap that carries them through, because it takes 21 days for eggs to hatch to get that process going again. But when those old bees are dying off and the queen hasn't started laying, you have that gap.

That's what I'm finding in my personal experience right now in Alberta. I was wondering what I had done, but I started calling around, and the story is very common from central through northern Alberta. I've heard from only a couple of beekeepers in Saskatchewan and Manitoba, and they have similar scenarios so far.

• (1225)

Mr. Randy Hoback: Is there anything you can do in that 21-day period when you have those bees dying off? I guess you would have looked at that and asked if there is a management practice that we could have shared among ourselves. I guess you talk among yourselves to try to figure out what that practice would be. Have you any advice or any knowledge?

Maybe that's not a fair question. I'll ask a fairer question.

When we start looking at the importation of queens in that whole area, do you think maybe we've been too reliant on Australian queens, New Zealand queens, or other queens coming from other parts of the world, and not having a variety of genetics here in Canada?

Mr. Kevin Nixon: I'll take a quick stab at that.

We are reliant on importing stock because we need queens so early. We need maximum population by July 1 to make a honey crop, so with 21-day intervals, we need that queen as early as possible. We cannot breed them early enough ourselves here, so we are purchasing queens.

Australia and New Zealand are a couple of options with packaged bees, and we also purchase queens from Hawaii. There is a handful of producers from California that are able to meet the protocol to export to us, and some come from Chile.

Stocks can vary and the quality of queens can vary because of weather conditions where they come from as well. A lot of the queen production is a result of the quality of mating, and there is a lot of variance in that as well.

Would you like to comment?

Mr. Grant Hicks: We do raise queens in western Canada. The way the weather falls in Canada, there really isn't an area that can get an early jump on the spring. Even in the Okanagan, you might get a 10-day jump on queen rearing. For queen rearing you need 75-degree weather and lots of drone population for proper mating, and it all seems to fall within a 7- to 10-day period when that starts in any given area.

To have a Canadian queen rearing industry, you can do it anywhere. In the Peace River district, which is what I am familiar with, we have 40,000 or 50,000 hives in the area and we probably raise 30,000 queens in June. Unfortunately, that's good for next year. For this year, we need that queen around May 1, in ballpark terms, so we are reliant on the importation of queens for early use.

The Chair: Thank you.

Mr. Valeriote.

Mr. Frank Valeriote: Thank you, gentlemen, for coming before us today. I think you arrived early enough to hear the discussion with the previous witnesses, who talked about the possibility, at least in Ontario, of the coming together of a number of factors that brought about what we colloquially called the perfect storm: the combination of the varroa mite, the viruses, bacteria, poor nutrition, genetics, the weather, and indeed the pesticides, the neonicotinoids. I understand that storm may not have happened out west, nor did it apparently happen in Australia or South America. Notwithstanding, we need to mitigate against some of these factors because it could happen to you.

I'm curious about a number of things. How much regard is given to your presence by farmers around you? When they're seeding, do they let you know? Do they introduce you to the kind of equipment they might be using and the efforts they're making to reduce the drifting of the dust? That apparently is the problem, if there is a problem. That's apparently the problem with the neonicotinoid. That's one question.

Secondly, Kevin, you mentioned there are discussions going on in various regions, although you're aware there are some regions where these discussions have not taken place. I'd like to know what regions they are.

And thirdly, I'd like to know what efforts are being undertaken... because you talked about training, or somebody talked about training. Maybe it was Grant. I'd like to know to what degree farmers are being trained in the measures that are intended to reduce the risk. Is it timing of seeding? Is it watching the weather conditions? Is it buying something that you can attach to your equipment that might reduce the drifting?

Maybe either one of you can take a shot at those three questions.

• (1230)

Mr. Kevin Nixon: You have to refresh my memory as I go through.

On point number one, are you asking about western Canada?

Mr. Frank Valeriote: In western Canada, to your knowledge, in your experience....

Mr. Kevin Nixon: We have not seen any negative impact from the use of neonics in western Canada so far. There hasn't been much communication among growers and beekeepers in the seeding times. There hasn't been a recognized need for that communication necessarily. It's more so during times of foliar applications of chemicals where that communication exists. In my local area last year they sprayed basically all the canola on the west side of the Highway 2 corridor. I have lots of bees in that area. For me to move all those bees within the window they need to spray in is just not realistic.

I have a relationship with the local chemical distributor. They also coordinate custom application or they sell the products directly to the growers. He will actually scope fields, watch out for my bees, call me and give me a head's up or ask me for my opinion on how to deal with it. I probably have had some foraging workers killed, but I've never had any significant kill. In some areas, that exists; in some areas, it doesn't.

Your next question was the relationship with....

Mr. Frank Valeriote: The second question was, what regions haven't had those conversations that you were talking about?

Mr. Kevin Nixon: Right. Going through this process, I think it has identified a great need for us as an industry, the Canadian Honey Council, to address that gap. In Saskatchewan there was some kill in alfalfa. When bees were present, the alfalfa was sprayed. It was a heavy kill. There were a few beekeepers affected, and it was significant. That relationship started that day. In the areas where there's been mutual benefit, such as a pollination contract business, that relationship has been there. Outside of that, if the mutual benefit is not recognized, it may be lacking there.

Mr. Frank Valeriote: Go ahead, Grant.

Mr. Grant Hicks: What he missed was the dust issue you brought up. Just so the committee is very clear about this, canola seed is small and round. It rolls gently through the seeders, and it doesn't require a talc. The corn is irregular, larger and coarser, so apparently the talc and graphite is used to help it flow through the system. With canola there is no dust required. What was such a devastating situation for Ontario beekeepers is not really part of the experience on the canola side—just so you're clear on that.

• (1235)

The Chair: Thank you.

Mr. Richards.

Mr. Blake Richards: Thank you.

It's always good to have a couple more fellow Albertans here. Welcome today.

I'll talk mainly back and forth a little bit in questions with you, Mr. Nixon, because you've been working on a committee that you've been a part of to try to accomplish some suggestions on how to minimize some of the losses, etc. I see that you've put together a pretty extensive list of recommendations in that committee, and obviously that means you've put a lot of time and a lot of thought into that. I want to commend you for that.

I have just a few questions. One of them is in regard to the reporting aspects in the recommendation. Obviously, these things

can always get interesting when you have different associations and different authorities in a number of the provinces. I'm just wondering what your thoughts are on setting up a standardized reporting and investigation system, whether you think there are concerns for jurisdictional issues in that. If so, how you would propose to deal with those, and if not, why not? Why do you feel there wouldn't be any issues there?

Mr. Kevin Nixon: We're fortunate that every province has a provincial apiculturist, and the industry is small enough that most beekeepers are well aware of who their provincial apiculturist is and how to reach him. That's been identified as the key primary contact. From that point it will be up to the beekeeper to call PMRA, but the provincial apiculturist will also call PMRA to report the incident, make sure the proper forms are filled out, and, if required, that an investigation occurs.

Mr. Blake Richards: You see it just as a linear situation, where in the appropriate province, because the industry is small enough in each province, every beekeeper would already know who the proper point of contact is, and then from there the information flows to where it needs to flow. Is that basically what I'm hearing?

Mr. Kevin Nixon: Right, and all provincial organizations have a monthly newsletter. The Canadian Honey Council also has a quarterly magazine, where they have printed the contact and the proper process to communicate incident reporting.

Mr. Blake Richards: With our earlier witnesses we focused a bit more on Ontario and some of the issues they had there. I know that both of our earlier witnesses spoke about canola—and I believe you did, too, Mr. Hicks—and how there have certainly been some very positive effects in relation to the trend of growing canola in our province. Obviously there are a variety of reasons why canola has been a very attractive crop, but it's certainly something that you believe has been beneficial for your industry as well.

I'm just wondering, are there places in Alberta or in western Canada where you've seen bigger issues with losses, and what do you see as the reasons there? I know when we had the panel earlier, it seemed to be pretty commonly agreed that certainly there's no one particular silver bullet that's a problem—it's a combination of factors—but have you seen pockets or places in the west where we've seen this, or in Alberta, and what do you see the causes being, or is it a variety of factors?

Whoever would like may answer it.

Mr. Grant Hicks: There are regions from which honeybees have just disappeared. It's too bad because it's a glorious honey-producing area, but it's a terrible honeybee wintering area. That's more or less north of the Peace River. There are thousands and thousands of acres of canola and mixed farming in that area.

In June and July there are 20 hours of daylight. There used to be a bee industry there. The producers there produced terrific crops, but now that you have to overwinter them, it just doesn't work there. I would say the further north you go, the higher the attrition.

● (1240)

The Chair: Thank you. Time flies when you're having fun.

Mr. Rankin.

Mr. Murray Rankin (Victoria, NDP): Thank you, and thank you to both witnesses for being here.

Mr. Hicks, I was intrigued when you just now talked about Peace River. Is it still being marketed as an area with the world's hardestworking honeybees? I can see why now, I think.

My first question is for Mr. Nixon. You talked a little about the compensation committee. I realize that their recommendations haven't been finalized. For compensation, I guess my question would be, against whom? Against the pesticide industry? Against the farmers for practices? Against the government for negligence? What would be the claim?

Mr. Kevin Nixon: That's a big part of the question. The task of this committee was not to look at what happened at incidents in Ontario last year. The Canadian Honey Council was brought into the picture after the fact and didn't know a whole lot around the circumstances.

In Alberta and Manitoba, and I'm not sure what other provinces.... We have crop insurance in most provinces. A couple of provinces have overwintering insurance, which is fairly new.

One possibility is looking at adding some kind of insurance coverage, tagging on to an overwintering program or something, if it can be administered that way. There's been talk about a fund being developed: a nickel per acre of corn, throw it into a pot, and have it as a fund to draw on. We need to really hash out which one is a better scenario.

In some cases, there may be a need for producers to deal directly with chemical companies. It depends on whether the label was followed correctly or not and what the circumstances were.

I can't speak to every situation.

Mr. Murray Rankin: Mr. Chair, I'm sharing my time with Madame Raynault, so perhaps I should exit at this point.

[Translation]

Ms. Francine Raynault: I would like to thank Mr. Rankin for sharing his time with me.

The document we received earlier indicates that Canadian beekeepers need bees in the spring to replace those lost over the winter. Bees are brought in from warmer regions further south.

Could this change affect their health? Do they react negatively to our weather?

[English]

Mr. Grant Hicks: It's amazing that they don't, really. They come from Australia and New Zealand. It's 14 or 15 hours by plane. I've never used that resource myself, but I did help a neighbour this spring. Those bees look great. There is a downside to them in that they're coming from an area that's just going into winter, so they're largely old bees.

A traditional area for importation of packages has been California. When they come in April, they're young bees that have hatched within the last two or three weeks as they've come off the almond crop. The hives are really stimulated in February with the almond crop and the hives are burgeoning in April.

When they come from the South Pacific, they've produced a honey crop and they're getting ready to go into winter. There's a bit of an issue there, but it's not huge. The biggest issue is the genetics of the queen. They are from a South Pacific climate and environment that does not have much in common with North America.

● (1245)

[Translation]

Ms. Francine Raynault: The document indicates that large companies are reluctant to develop new products because the market is not very big, especially in Canada. It also indicates that the financial risk they must take on is high compared with the financial advantage they might derive from it.

Everyone knows, and everyone here knows, that if there were no bees, there would be no tomatoes, honey, fruits or vegetables. So what are you doing about this? What would you like the government to do to require companies to provide products that will not harm bees or other plants?

[English]

Mr. Grant Hicks: I'll take a shot at that, and then Kevin can fill in the blanks.

Yes, that is a huge issue. We're behind the eight ball all the time. I asked that question of the cattle industry: what's going to be their next antidote to infectious diseases or the various fly treatments? Well, they say the veterinary college looks at it and then they talk to the pesticide industry. There's enough profit to be generated from the cattle industry that it's worth their while then to proceed to explore that new product line. With our industry, we're so small that the profit margin really isn't there, so we basically are piggybacking on products that have already been developed for other purposes.

A further pet peeve is that Canadian beekeepers contribute between \$1.5 billion and \$2 billion of value to the canola industry, the blueberry industry, and the cucumber industry, for which we receive no remuneration.

So I see it as a goal that we as an industry need to really pursue in terms of working with stakeholders who require the services and who benefit from the services we provide. That's a possible solution to our issue.

The Chair: Thank you.

Go ahead, Mr. Payne.

Mr. LaVar Payne: Thank you, Chair.

Thanks to the witnesses for coming today. This study is certainly at its peak because of what happened in Ontario and Quebec last year.

Mr. Hicks, you talked about the research centre in Beaverlodge, I believe you said. Could you tell us what kind of research is going on and when that facility was put into place? Do you have any details on that?

Mr. Grant Hicks: It's in my area, but I don't really have a whole lot of details. It has been open, I believe, for a year and a half or two years, and it's fully staffed. It's funded for five years, so they can have a chance to get programs off the ground.

The instrumentation and the staff there are capable of doing any of the work that the bee industry would require. It's an arm of Grande Prairie Regional College, which is a very aggressive institution in our area. I know they have brought in some instrumentation recently that may be useful with the pesticide issue, in terms of analyzing for very low levels of insecticides. So it's the kind of thing that could be a real boon internationally to the Canadian industry and to Agriculture and Agri-Food Canada, because it has those kinds of capabilities.

Mr. LaVar Payne: Kevin, do you have any comments on that? No?

You talked a bit about the import of queen bees and bees in general. What about the genetics? Can you fill us in on anything that would be more beneficial for the Canadian industry, in terms of genetics? Is anything happening around that?

Mr. Kevin Nixon: There is some work being done around it. A little bit is being done in Canada; more of it is done in the U.S. But there is selection of traits for breeding queens for resistant stock, resistance to mites, and hygienic behaviour. It has been going on for years, and it has not been developed far enough yet to bring it to a commercial level.

Realistically, will it? I don't know. We import into Alberta about 100,000 queens a year, I believe, and we need them in May. Can a large commercial queen producer achieve that with genetic selection and hygienic behaviour selection? I'm not a queen breeder. I don't know, but there is work being done on it.

• (1250)

Mr. Grant Hicks: I think Kevin is being a little humble, or his memory is slipping.

He's been to Chile and has imported Chilean queens into Canada. One of their goals was to ship Canadian stock to Chile so they could breed it there and ship it back to Canada. Their season would let them do that in March and April, when you can't do it in this area. Because Canada hasn't defined a national bee health status, Chile refused to accept Canadian bee stock.

One thing that Alberta, Manitoba, and the CFIA are going to move ahead with is a national bee survey that will be acceptable and recognized in international circles, so we can move our genetics more easily around the world.

Mr. LaVar Payne: How far off would that be? Do you know?

Mr. Grant Hicks: It's a five-year project, being funded through Growing Forward.

Mr. LaVar Payne: Kevin, I think you talked a bit about injecting chemicals into the hives to kill off the mites. Is there any impact on the bees from the chemicals you're using in there, or are they all resistant to the chemicals?

Mr. Kevin Nixon: We have one chemical that is working well on the varroa mites. We're on year four, year five now, so it's due to run out any day. We don't have anything to replace it yet.

It's definitely a concern of the industry. As beekeepers we have to be conscious of what we put in our hives and make sure that we are using it according to the label. If we overdose or overexpose, resistance will happen that much faster.

We need to have enough alternatives on hand to have rotation to reduce that resistance and to ensure that we're producing a safe and healthy food product. We have to be cautious of what and how much we put in.

The Chair: Thank you.

Time flies.

I'm going to go round the table one more time and give everybody one question.

Ms. Brosseau is going to start.

Ms. Ruth Ellen Brosseau: Thank you, Chair.

We know there is a two-year ban in Europe. I know that we have to base our decisions on sound science, but so much goes into this very complicated issue.

Can you comment on what the European Commission is doing? I think on May 1, the beekeepers of Quebec decided they were also asking for a ban. Do you think that's the way to move forward, to ban and wait until we have more science, or do you believe that we have enough science to back a ban? It's a complicated issue. Can you comment on banning in general?

Mr. Grant Hicks: In our experience, that's not the way we need to go. We're seeing no ill effects.

For me to comment on a situation that I'm not terribly familiar with probably wouldn't be fair.

That's the best I can do. Sorry.

Ms. Ruth Ellen Brosseau: I guess we need more sound science, or do you not have a comment because you're not affected by it?

Mr. Kevin Nixon: I would agree with Grant. What happened in Ontario last year is significant. We don't want to discount that in any way. It looks as if it strongly correlates to the exposure of dust last year. I believe the dust situation is being addressed as quickly and as well as possible by the other stakeholders.

There is a definite need for research to see if there are any longterm effects that aren't being caught. There is room for science to be done there.

● (1255)

The Chair: Thank you.

Mr. Valeriote, you have one question.

Mr. Frank Valeriote: It's about the report you submitted.

I don't have the benefit of the entire report. I have a number of pages that were attached.

You talked about a number of recommendations. I haven't had the benefit of looking at those recommendations. Can you recite some of them, as a result of our not having that report?

Mr. Royal Galipeau (Ottawa—Orléans, CPC): You have 30 seconds.

Mr. Frank Valeriote: Don't listen to him. You go ahead.

Mr. Kevin Nixon: There are over 40 recommendations. Do you...?

Mr. Frank Valeriote: Recite the more significant ones.

The Chair: In order to save time, I'd ask you to forward those recommendations to me through the clerk's office—

Mr. Kevin Nixon: Yes, we can do that.

The Chair: —and I'll see that they're distributed to the members.

We have another piece of information getting translated, and I'll make sure the committee members get that as quickly as possible.

Mr. Frank Valeriote: Great. That's all. Thank you.

The Chair: Mr. Shipley, do you have a final comment?

Mr. Bev Shipley (Lambton—Kent—Middlesex, CPC): Thank you, Mr. Chair. I have a quick question.

You mentioned the concern regarding the pesticides register because you're a small industry.

Is there the opportunity for Canada to piggyback with other nations as they develop registrations for products, whether for mites or others that you need to deal with, so that when the registration happens, Canada becomes a part of that solution, along with other nations, which gives us the advantage of having a bigger pot to work out of?

Mr. Grant Hicks: That's way out-of-the-box thinking, but it would be a great way to go. It currently doesn't occur, although I think PMRA has lined up with the international...to a much better degree.

Mr. Bev Shipley: Actually, PMRA should be doing that, or looking at it or considering it. It might be something for the Canadian beekeepers to be pushing for.

Thank you, Mr. Chair.

The Chair: You're more than welcome.

With that, I'll thank our guests for being here today. We appreciate your time and input. It's a big challenge, obviously, and we're not opposed to challenges on this committee, so hopefully we'll come forward with something that suits most.

For the committee's sake, we'll continue on Thursday with this study.

I also want to advise members, and particularly staff, that we need the recommendations of people for the animal welfare segment. We need their names forwarded by the end of this week so that we can send the invitations.

Thank you. The meeting is adjourned.

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