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Thursday, December 16, 2010

Chair

Mr. Larry Miller

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● (0850)

[*English*]

The Chair (Mr. Larry Miller (Bruce—Grey—Owen Sound, CPC)): I would ask members to take their chairs, please. I will call the meeting to order.

This is, as someone pointed out, certainly the last meeting of 2010 and probably the very last committee meeting in this building, let alone this room, for probably five or six years.

I guess we are probably the only committee that is having a meeting this morning, so I think we should give ourselves credit for being here and doing government business.

I'd like to thank our witnesses for being here. You have been on notice that this meeting may or may not happen, so we appreciate you playing ball with us and it is good to have you.

First of all, we're going to move to CropLife Canada. We have Lorne Hepworth and Janice Tranberg.

Mr. Lorne Hepworth (President, CropLife Canada): Thank you, Mr. Chairman and members of the committee. Good morning and thank you for the opportunity to be here today. I guess it's a historic meeting.

I am joined, as you referenced, Mr. Chair, by Janice Tranberg, who is our vice-president for western Canada out of Saskatoon, our innovation office at the University of Saskatchewan, and who also leads our plant biotechnology file.

As the president of CropLife Canada, the trade association representing developers, manufacturers, and distributors of plant science technologies, including plant biotechnology, I'm always happy to speak about our industry's place in Canada's future.

Both large- and small-scale developers of agriculture biotechnology as well as distributors of these products all play an important role in the Canadian agricultural sector. As governments seek to maintain or attract investments from these companies, it is important to understand what drives their decisions.

Ours is a highly scientific industry that contributes significantly to international research. Each new biotech trait takes about ten years and costs between $100 million and $150 million to bring to market.

With annual global research expenditures of over $5 billion, our industry accounts for one-third of the world's total agricultural research and development investment. This represents about 11% of total sales, and puts our industry in the same league as the pharmaceutical industry in terms of overall reinvestment in R and D, which I think speaks directly to our commitment to innovation.

As you explore the future of agricultural biotechnology in Canada, let me be unequivocally clear about what our industry will be looking at when it contemplates the very same thing. Our industry will be asking whether Canada has upheld its commitment to science-based regulations. Without a solid, science-based regulatory system, our industry will not be able to invest in this country to the same degree it has in the past, particularly when there are options to invest in countries where the criteria for success are clear and predictable. Where these plant biotechnologies are supported, there are benefits on three very important fronts: benefits to farmers, benefits to the environment, and benefits to consumers.

As you can imagine, biotech would have fallen flat if they did not deliver economic benefits to our customers, the Canadian farmer.

Various studies tell us that the net global economic benefit from plant biotech crops at the farmgate level was $10.1 billion U.S., to use 2007 as an example. The direct and indirect economic value of GM canola is $300 million Canadian a year. Biotech applications decreased the environmental impact—and costs—from herbicide and insecticide use by 17.2%, when looked at through the period 1996 to 2007.

It's no surprise then that Canadian farmers are voting with their seeders in favour of biotechnology. In fact, Canadian farmers choose genetically modified options for approximately 90% of the canola they plant, 85% of the corn, and 65% of the soybeans. Globally, this makes Canadian farmers the fifth highest adopters in the world of the technology in terms of acres planted.

Much of today's research is focused on developing ways to enhance, protect, or adapt to the changing environment. In the coming years, we expect to see new traits that offer tolerance, that can withstand drought and other stresses like cold and saline soils, new disease resistance, better nitrogen utilization, and a range of healthier foods.

The prospect of drought-tolerant crops is particularly exciting given the high demand agriculture places on water supplies, because the United Nations estimates that by 2030, one in five countries will experience water shortages. We need drought-resistant varieties before that time if we are going to weather the food security challenges that such a significant water shortage would cause.

One in six people in the world is already undernourished. What happens if one in five countries ceases to have the water required to grow food?

Drought-tolerant crops can initiate natural drought defence mechanisms earlier in the moisture deprivation stage, and as such, they stand to have a significant impact on Canadian farmers as well as farmers in developing parts of the world.

Corn and canola, with improved nitrogen utilization, are also on their way. Reducing the amounts of inputs required saves farmers both time and money. It's something they clearly appreciate.

By improving the ability of crops to use nitrogen, we reduce the amount of money farmers pay for fertilizer, the amount of fuel they burn applying it, and at the same time it increases their profitability. From our perspective—and I would dare say it's a perspective many farmers and consumers share—these innovations are worth pursuing.

The question then becomes what is Canada's vision for the future of agriculture, for ensuring Canadian farmers are competitive into the future? Are investments in innovation and agricultural biotechnology things this country wants to see happen and happen here? If so, what needs to be done to attract investment and ultimately the commercialization of these new technologies here in Canada?

As I said earlier, first and foremost it's science-based regulations. A predictable, evidence-based regulatory framework built on science is essential. As an industry, we accept that the technology is and should be highly regulated to ensure public safety and environmental protection. But we believe this should be done on the basis of sound science, not public opinion polls, not personal anecdotes but solid, evidence-based, peer-reviewed science.

Secondly, Canada needs to take a leadership role on global modernization of regulations. Foremost, this means Canada must develop and adopt a low-level presence policy for genetically modified crops and then advocate for other countries to do the same. The fact of the matter is that detection technology has become so incredibly sophisticated that one flax seed, for example, in a sea of ten thousand is detectable. As you've heard from other members coming before this committee on this study and others, zero tolerance is simply not practical, and trace levels of safe and approved GM crops should not be impeding the movement of commodities around the world.

Other regulatory and policy areas of importance that I do not have time to elaborate on this morning include a clear policy statement on plant-made industrial products, the Canada-EU trade agreement, asynchronous approvals, product discontinuation protocols, and regulatory efficiency timelines.

Also related to regulations and Canada's ability to attract innovation will be the appropriate funding, training, and human resource allocation to regulating agencies and departments as well as the country's continued alignment with like-minded industrial nations. Plant biotechnology innovations are gaining momentum, and the number of submissions will be escalating. Canada must be ready and prepare for an explosion of activity on this front.

Let me explain. Whereas in the past ten years there have been 33 biotech approvals sought worldwide, we anticipate there will be 125 approvals sought in the next five years alone. And close to half of these will come from Asia.

Ladies and gentlemen of the committee, this is the new competition. It's the Chinas of the world that are spending 1% of their GDP on research, and a big chunk of that is dedicated to agriculture biotechnology. If you think there's an issue today around low-level presence policy and the nimbleness to make sure our farmers have the tools, wait until some of this competition starts to come online.

Improved efficiency and performance of the regulatory system, both within and between regulating departments and agencies, is essential for coping with some of that, so that one department's lag does not create a drag on government's overall performance.

Canada can, in part, help decrease the pressure it comes under by increasing synchronization of approvals, using common approaches to risk assessment, and doing joint reviews to avoid trade issues related to asynchronous approvals for plants with novel traits and low-level presence. Also, it can recognize regulatory decisions of other countries, particularly in North America, while Canada conducts its own risk assessments. And it can pursue regulatory bilateral and multilateral agreements to increase predictability and efficiency.

Our industry is excited about the future of agriculture innovations. For decades our innovations have been helping to feed people here and around the world by providing farmers with tools that help them grow more food on less land. We attract some of the brightest minds in research and business. And one thing we all share is pride in the solutions we generate for challenges that exist today and challenges we expect will develop in the future.

Our provincial and federal governments need to talk about the regulatory approach in a way that will reinforce public confidence. Alignment across the country and a willingness to defend the rightfulness of science-based polices will be absolutely essential to attraction of investment and further innovations.

● (0855)

We believe biotechnology can play a pivotal and transformational role in that future for Canada and for the competitiveness of Canadian farmers. Mr. Chairman, members of the committee, we hope you will come to that same conclusion as you explore this topic further. We ask you to join with us in helping to grow Canada.

Thank you, Mr. Chairman.

The Chair: Thank you very much.

We will now move to Lucy Sharratt, coordinator for Canadian Biotechnology Action Network.

Ms. Lucy Sharratt (Coordinator, Canadian Biotechnology Action Network): Thank you, Chair.

Thank you, committee members, for inviting me here today on behalf of the Canadian Biotechnology Action Network to speak to you about the issue of genetic engineering.

It is important to evaluate what we have learned about genetic engineering from our 15 years of experience with this technology in food and agriculture in Canada.

I work in Ottawa as coordinator for the Canadian Biotechnology Action Network, or CBAN. CBAN is a coalition of 18 organizations across Canada that have various concerns and experiences with genetic engineering. This includes international development organizations such as Inter Pares and USC Canada. It includes farmer associations such as the Saskatchewan Organic Directorate, the Ecological Farmers' Association of Ontario, and Union paysanne. It also includes coalitions of grassroots groups like the Society for a G.E. Free B.C., and the Prince Edward Island Coalition for a GMO-Free Province.

What brings us together is a concern about the impacts of genetic engineering, be they economic, social, or environmental, and the lack of democracy in relation to decision-making over this technology.

The Biotechnology Action Network is three years old. In my role heading the small secretariat here in Ottawa, I conduct research and assist in communications, such as my testimony here today.

I have worked as a researcher and campaigner on these issues around genetic engineering for 15 years. For example, on Tuesday Gord Surgeoner mentioned a council that brought diverse stakeholders together. He was referring to the Canadian Biotechnology Advisory Committee. I participated in the work of this committee when I worked for the Sierra Club Canada. That committee no longer exists.

My understanding from attending the first hearing on Tuesday is that the committee study is open to or explicitly asking for recommendations. I seem to be hearing that there is an openness to examine many issues around the biotechnology industry. We hope this is the case, as we think there are very many critical issues, such as those raised by Bill C-474. I'll speak to some of our analysis of what needs to happen in Canada on this issue, what we think, and what we will be faced with in the new year.

I understand that the debate over Bill C-474 has been a part of triggering these hearings, and we think it's highly appropriate that farmer concern about the impacts of biotechnology instigate an investigation into genetic engineering.

To be clear, I'm talking about genetic engineering as defined by the CFIA, which is recumbent DNA technology. This is what we're referring to when we talk about biotechnology. This is what's at issue and where the controversy largely lies.

CBAN argues that there are fundamental problems with genetic engineering and fundamental problems with the Canadian government's approach to this technology, including our regulation.

I'll talk about some of our concerns by looking at three immediate issues we face in Canada: the possible introduction of genetically engineered alfalfa, GE pigs, and GE salmon.

In the short brief that CBAN submitted to the committee we introduced these three case studies, as well as the issue of genetically engineered wheat, which we think illustrate the need to assess the potential export market harm of applications of genetic engineering. They also illuminate other critical issues and possible negative impacts.

To begin with, CBAN would like to state our support for Bill C-474 and the recommendation that social and economic concerns be incorporated into the regulation of genetic engineering.

CBAN would also like to remind the committee that in 2001, as commissioned by the ministers of agriculture, environment, and health, the Royal Society of Canada's expert panel on the future of food biotechnology published 58 recommendations for regulatory reform. CBAN would like to see the government implement all 58 of those recommendations.

I'd like to concentrate my testimony by discussing briefly the three genetically engineered organisms we must immediately deal with. All three pose major economic and environmental threats, and are or will be highly socially disruptive. They will certainly be socially contested—the alfalfa, pigs, and salmon.

This is the immediate future of genetic engineering. Any of these three could be commercially introduced next year, or even this year. Each is approved via a process that neither the public nor independent scientists have access to. Each is subject to intense opposition for distinct reasons. These three GE organisms illuminate three key concerns we would like to raise, among many.

First, contamination is a reality and has numerous negative social, economic, and environmental impacts.

Second, GE research is under way in universities with either industry or public funds, but without a public mandate.

● (0900)

And finally, government decision-making processes are kept secret and locked away from public participation, and these processes rely solely on privately owned science. These highly secretive processes could allow the commercialization of the world's first genetically engineered food animal.

If we look at this first issue, contamination, which of course the committee has discussed in depth, we see that it has numerous social, economic, and environmental impacts, and that the fallacy of coexistence will collapse if GE alfalfa is introduced. By coexistence I mean the ability of organic or other non-GE crops or farming, non-GE farming, to exist side by side with GE crops. Alfalfa will contaminate. This is a certainty, given the characteristics of alfalfa as a perennial crop pollinated by bees. You've already heard this in the testimony from forage groups. Contamination happens, but farmers always knew this would happen. Contamination was predicted and is predictable, and yet there are no policies that we see or regulatory mechanisms in place to address this.

The issue of alfalfa shows how certain applications of genetic engineering can be a clear threat to some or many farmers, and yet these farmers have no way to communicate effectively to government. There is no avenue for farmer consultation on the impacts they foresee.

As the committee heard in June, conventional forage growers are clear that GE alfalfa would ruin their businesses. As the committee heard from the organic industry, GE alfalfa is a clear and immediate threat to the future of the entire food and farming system in North America.

To summarize, we think the issue of GE alfalfa clearly raises the need to incorporate social and economic considerations in decision-making.

Second, we would say that GE research is under way in universities, as I mentioned, either with industry or even public funds, and yet without a public mandate. And here we could look at the example of "Enviropig". Canada is about to become the origin of GE pork, the GE pig trademarked Enviropig.

Canada could be the first to approve the GE pig for human consumption. The University of Guelph submitted a request to Health Canada in April 2009, and we only know this because this is the one piece of information the university has shared with the public. Environment Canada has already approved the pigs for confined reproduction.

Enviropig was developed by Canadian researchers, with public funds, at the University of Guelph. It was developed with public funds, but without, we would argue, a public mandate. Just like the GE Triffid flax, a university is ready to commercialize a product that consumers and, arguably, farmers do not want. So we would ask where the public oversight is in that process.

The project Enviropig was conceived over ten years ago and was pursued with at least two explicit assumptions that we now see are false: first, that this product was an environmental solution and would be seen as an environmental solution; and second, that consumers would accept GE foods by the time the product was ready for market.

Canada needs to, on an urgent basis, evaluate the social acceptance and economic impact of Enviropig. Our current regulatory system does not allow the government to consider these questions. These are, in practical terms, irrelevant in regulation. Health Canada could approve the GE pig for human consumption in Canada tomorrow. The fact that this decision alone is likely to cause chaos in the domestic and international market for Canadian pork and pork products is irrelevant in our current regulation.

This brings us back to the question of export market harm, the problem identified by Bill C-474, the core problem of approving GE crops despite and regardless of their known, anticipated, or possible economic and social impacts. The possible commercialization of Enviropig also brings into sharp focus the fact that there is no mandatory labelling of GE foods in Canada. The reality is that consumers will avoid pork and pork products in order to avoid GE pork.

Finally, we would say that the government decision-making processes are kept secret and locked away from public participation. These processes rely solely on privately generated and privately owned science, and yet these decisions can potentially have very grave impacts.

I did want to mention the case of the genetically engineered salmon, because it does illustrate some very specific problems that cross into other genetically engineered organisms. Canada is about to become the origin of GE salmon eggs for the world.

● (0905)

Documents released by the U.S. Food and Drug Administration revealed that AquaBounty, a U.S. company, actually plans to produce all of its GE salmon eggs in Prince Edward Island, then ship them to Panama to grow out and process and then ship to the U.S. market.

I and others have called Health Canada to request information about this possible risk assessment, and Environment Canada actually refuses to even tell us if a risk assessment is under way. This is because Environment Canada is now charged with regulating GE animals, including the fish.

In conclusion, the government has invested in the biotechnology industry as an economic driver, as a valuable economic activity. Yet in our view, we see that genetic engineering is actually about to take down Canada's pork producers and organic grain farmers.

It's urgent, in our view, that the government be proactive in resolving these ongoing issues that we see are building into a crisis, a crisis that will cost farmers their crops and organic certification. It will cost hog producers their markets, both domestic and international.

It's a crisis that will take the form of a consumer crisis of confidence in the food system and in our democracy. In the case of GE salmon, it is a crisis that could involve species extinction, a global conservation crisis.

Unfortunately, in our view, these are not exaggerations. These are risk evaluations, and our government currently does not have the tools to ask or address these questions.

We recommend that the government place a moratorium on approval of all new genetically engineered organisms until there has been a wide democratic debate and also a fundamental change in our approach to this technology.

Thank you.

● (0910)

The Chair: Thank you very much.

We'll now move to questioning. Mr. Valeriote, for seven minutes.

Mr. Francis Valeriote (Guelph, Lib.): Thank you, Lucy, Lorne, and Janice, for coming and speaking to us today.

We've listened to these arguments for quite some time now, both in these discussions as well as in discussing Bill C-474. I've come to the conclusion that there are two different solitudes, and based on the information that I've had, these solitudes can co-exist if people have the will to sit down and discuss common ground and those matters that are of deepest concern.

Lucy, you mentioned the Canadian Biotechnology Advisory Committee. When I think of that, I think it is really the only kind of forum in which solutions could be found. I don't see Health Canada or CFIA, or any other organization having regard to social, economic, or environmental impact or species extinction issues as you've raised it. I frankly don't know the extent to which the biotech industry considers those things. But if we're looking at sustainability, it goes a lot further than just reducing emissions of GHGs.

I also know that science is so important. We need that science, so that we can feed the world with the growing three billion people over the next 20 or 30 years and deal with climate change.

I want to restrict my question to each of you, and I want your opinion on the merits of reconstituting a Canadian Biotechnology Advisory Committee, so that all industry stakeholders come together, come up with solutions, and make recommendations to the government. Could I hear each of the three of you speak on that matter?

Lucy, you can go first.

Ms. Lucy Sharratt: It's a very interesting and exciting idea to bring forward at this time, because we have 15 years of experience with genetically engineered crops.

The Canadian Biotechnology Advisory Committee was established by the Canadian biotechnology strategy, which also will soon have an anniversary. It was initially created in 1983.

Certainly dialogue can be had and can be extraordinarily productive. As you said, there are so many complex issues, and individual regulatory agencies can't necessarily deal with them. It makes sense to have a broader debate, a broader exchange, and to hear from communities of people. One of the issues is how to constitute a committee so that it is a good environment for such dialogue.

That was one of the critiques of the Canadian Biotechnology Advisory Committee. It was roundly critiqued as being biased toward industry, as it happens, and the constitution of the committee was also contested. There were a lot of issues that made it difficult for the committee to function properly or function as it could have in its full potential. That was also reflected in the government investment in the committee into the future, and why it has sort of trickled down to nothing in 2004.

Now, when we're faced with these complex issues, there is no forum to bring parties together inside government. It was an arm's length committee.

● (0915)

Mr. Lorne Hepworth: Maybe I'm a little older than some, because my knowledge of the consultative mechanisms for biotech actually precede the days of CBAC. I was one of the members, in the early nineties, before anything was commercialized in Canada, of what was then called the National Biotechnology Advisory Committee. It then essentially morphed into the Canadian Biotechnology Advisory Committee. I think that was put in place at that time by the minister because they saw these technologies coming. They recognized that there could be flashpoints with their introduction and that they needed to involve the public in consultations on this subject.

Certainly I remember the members of that committee, very much expert members—deans of medicine, universities, and those kinds of knowledgeable folks—recommending to the government back then that we'd better be very proactive in our consultations with stakeholders. And in fact that was put in place.

I also recall that back in those days it was hard to get anybody out to the meetings. When some of the stakeholders were called in, at the end of the day a group of them said to heck with it. It wasn't the industry. Others that maybe weren't so favourable to technology walked out of those stakeholder processes. They said that they would have nothing to do with them and that they thought they were biased and so on.

It then morphed into CBAC, which has dissolved.

There have been other consultative mechanisms over the years to tackle some of the thorny issues. One I would refer you to that I know we sat on for two or three years, because it was pretty painful, was the standard on labelling, under the Canadian General Standards Board, which we have today: the national standard of Canada voluntary labelling and advertising of foods that are and are not products of genetic engineering. It was quite a mouthful. The voluntary standard had to be informative, understandable, not false, not misleading, and verifiable.

So there have been consultations. It has always intrigued me that the public didn't engage to the degree that one might have thought they would until some many years later. If there's need for another consultative mechanism that can actually be meaningful and that can work, that certainly would be something I think we would consider. I mean, we've been involved in the past. When others walked away, we stayed at the table.

Mr. Francis Valeriote: Go ahead, Janice.

Ms. Janice Tranberg (Vice-President, Western Canada, CropLife Canada): I also wanted to comment that surveys have been done. I can point to one in particular that was done by Biotecanada in 2008. It was a broad survey that showed that eight out of ten Canadians actually saw benefits in agricultural biotechnology.

As has been brought up several times, we have 15 years of experience. We've been dealing with these crops for 15 years. The industry has actually worked very well together to bring forward solutions any time there have been issues that have come forward.

One solution in particular I'd like to talk about right now is the Grains Innovation Roundtable. This is a very broad-based stakeholder group that brings together government, grower groups, provinces, and industry, all the way from the grain handlers through to food processors. We've been talking about a number of issues. Certainly low-level presence has been one of the key issues we've been discussing.

When I travel around the world and talk to people, one of the comments I get is that Canada actually has an extremely good history of bringing together the stakeholders to have these discussions. That's one of the comments I get on a regular basis.

So I think there is great value in these kinds of forums.

The Chair: Thank you.

I will now move to Mr. Bellavance, for seven minutes.

[*Translation*]

Mr. André Bellavance (Richmond—Arthabaska, BQ): Thank you, Mr. Chair.

Good morning and thank you for being here.

A lot is being said about commercialization, about the huge sums of money at stake, but we must realize that hunger and malnutrition are affecting some 1 billion people in the world today. Of course, for some, biotechnology and its innovations can be part of a food safety plan. However, something that is being increasingly discussed by people around the world today—and rightfully so, in my view, for having attended a number of conferences on the issue—is the need to better promote food sovereignty, which is not in contradiction with food security. Needless to say, many of the companies that engage in commercializing biotechnologies do not have as their primary concern peoples' food security, but rather they want to make people dependent on those biotechnologies. That is a real danger. I agree that biotechnology is not all bad, but neither is it a cure-all that will help people... Besides, if that were the case, I think that malnutrition and suffering caused by hunger in the world would no longer exist.

Mr. Hepworth, I would like to come back to a document produced by your industry association, CropLife, in which you raise problems with regard to the European Union. Does the European Union currently not have a 0.9% tolerance level concerning genetically modified organisms? Does that not permit you to trade with the European Union?

● (0920)

[*English*]

Mr. Lorne Hepworth: Thank you for your observation and question.

On the issue that you rightly raise about the tragedy in the world of a billion people suffering from undernourishment and hunger, I think most people, when they look at that and how the world is going to help deal with that question, which has been a long and ongoing one—the millennium development goals spoke to trying to reduce that by half by 2015, I think it was—we're not doing as well there as probably we would like. But I think it's fair to say that a lot of the world's countries and governments and their regulators recognize that we're probably going to need all the tools that we can have, responsibly used, to help address that problem and water and all the rest of it.

I think you see that happening across the world now with the rapid uptake in a lot of the developing economies. We now have something in the order of 25 countries where GMO crops are growing about 330 million acres on the ground, including 90% of those crops now in developing economies.

On Europe, I should say right at the outset before I go to this part of the question, and on technology dependence—I should pick that up as well.... It's all about choice. It's about choice for the consumer and choice for the farmer. A lot of people think that because I work for the plant science industry I'm somehow against organic. I'm not. If farmers choose to grow organic and if consumers choose to buy organic, that is their right, and that should be their choice, as long as it's all done on a factual basis in terms of what the benefits and the risks are.

As to whether somehow these technologies that we're developing are making farmers technology dependent, I would suggest that this is a gross underestimation of the intelligence of the average farmer. They are very shrewd people and they wouldn't be choosing these technologies, like they are in Canada, if they didn't bring benefits economically.

Farmers are really good stewards of the land. That's their whole being, if you like, because if they don't look after the land and the environment, the land and the air, they won't be there subsequently. To suggest that this is somehow tech...that farmers aren't smart enough to see around that I think is a gross underestimation of them.

In terms of Europe and tolerance levels, once again—

[*Translation*]

Mr. André Bellavance: Who said that, Mr. Hepworth? Are you implying that I said that farmers are not smart enough to be able to make choices? I never said such a thing.

[*English*]

Mr. Lorne Hepworth: I was picking up on your observation that our companies, I think you inferred, were making them technologically dependent. What I'm saying is that this would underestimate the intelligence of the average farmer, because they're very savvy and they choose these technologies for all of the right reasons.

[*Translation*]

Mr. André Bellavance: I never said that farm producers were not smart enough to make the right choices, but it must be noted that, in many countries where companies like Monsanto and other biotechnology firms are doing business, people are indeed becoming dependent. Producers do not even have the right to use their own seeds to grow their crops. So they do not always have a choice.

I will now turn to Ms. Sharratt.

You know that our committee has discussed Bill C-474, which is sponsored by MP Alex Atamanenko. There is the case of Argentina, where they have a licensing process for the commercialization of genetically modified seeds. Argentina assesses the potential negative impact new modified seeds might have on the export market. We have heard many comments about possible lawsuits by other countries, but I have done some research and was not able to find any country, whether before the WTO or other organizations, that have taken action against Argentina because it had added that assessment to its licensing protocol for the export of genetically modified seed. They conduct a market study or risk assessment before approving a product for export. They even have an agreement with the European Union.

Without being totally against all of these biotechnologies, do you feel that these technologies should be better regulated in order to provide us with greater assurance, which is the objective of the Cartagena protocol that Canada is refusing to sign, and to alleviate peoples' concerns on these issues?

● (0925)

[*English*]

Ms. Lucy Sharratt: I think it's possible that there are a number of models around the world, Argentina being one, where countries are also looking at what the issues are for them with genetically engineered crops. Argentina and Brazil are huge producers of GM soy, and Argentina chose to look at the economic impacts, or certainly the export market, as one of their considerations. It hasn't hampered their trade. Even Brazil is trying to make sure non-GE soybean seeds are now available for farmers, because they also recognize that's a problem.

So I think there's room for the Canadian government to perhaps dialogue with other governments, even to look at what's needed, because this issue of zero tolerance exists because some crops are not approved for safety. So that's a hard issue for the government to overcome, because that is about approval. If you haven't approved a crop for safety, you can't tolerate.... We might say it's safe, the Canadian government might have ruled that a crop is safe, but if another country hasn't said the same, they can't override that decision that they haven't yet been able to make. So I think there are some serious issues there.

The Chair: Thank you. Your time has expired.

Mr. Hepworth, as a farmer, I appreciate your comments about farmers having the ability to make choices on their own.

Mr. Atamanenko, seven minutes.

Mr. Alex Atamanenko (British Columbia Southern Interior, NDP): Thanks to all of you for being here.

My first question is for Lorne and Janice with regard to when the whole idea of my bill came up. I remember it was at a reception, and I'm not sure if it was you I was talking to, Janice, or someone else, but I was told you, being CropLife, did not want my bill debated democratically. I've retained that; I'm not sure of the exact quote, but I know someone at a reception told me that. I'd like to know why.

Mr. Lorne Hepworth: You're right, our recommendation was to not have the bill go forward. Our view was and our recommendation was that the whole issue of biotechnology should be looked at. So congratulations to the committee for doing this now and looking at it in a much broader context, as opposed to the very narrow context of the bill. So that is yes, we were against the bill going forward, but in favour of this broader kind of discussion.

Why were we not in favour of that bill going forward? The reality is, it sends a very negative signal to investors in new technology that will help farmers be competitive in Canada, to make further and bigger investments here in Canada. That was the basis for our—

Mr. Alex Atamanenko: I'm going to interrupt you, because we don't have a lot of time.

We've seen and are seeing that the biotech industry in Canada is alive and well. I don't think it's suffering in any way. Genetic engineering is a small part of it, we've learned. Biotech doesn't necessarily mean genetic engineering. There are all sorts of innovations that have happened, and the industry is moving forward.

But we also have the reality. The reality is that there are certain markets out there that are now accessible, for example alfalfa and wheat, but which could become inaccessible to farmers if they were shut down because of contamination.

So I have a hard time understanding why there was such a push and lobbying effort on behalf of your industry to basically shut down debate on my bill when we were studying it.

Further, Lucy, you mentioned there have been approvals with no public input. In the literature that I've studied, I've read that a lot of what we call “science-based” is science that's based on research done by industry, and independent scientists or scientists working for governments often have a hard time accessing that research. So when something's approved by Environment Canada or Health Canada, it's often based on research done by the industry without any independent research being done, and it's then approved for release into the environment.

So I would like to get a comment on that. Maybe we could start with Lucy and move down the row.

● (0930)

Ms. Lucy Sharratt: Thank you.

I do think it's very important for us to remember that this is actually more than just an issue of transparency, but an issue where the science that government is evaluating is not accessible to the public, and not even accessible to independent scientists, and, more fundamentally, that this science is not peer-reviewed science.

Peer review is part of the definition of how we create science, and this was something the Royal Society of Canada had critiqued in their report of 2001. They had a number of recommendations. Certainly one was that the entire science behind GM crop approvals be made open to peer review, that it be peer-reviewed, and that it be open to independent access.

There are different models that could be chosen to give access to those data. Certainly right now the data are classified as confidential business information. So this is a very big problem.

Regarding the design of the testing regimes itself, we don't know what those methodologies are. But the scientific community, in consultation with the government, could take a look at what testing methodologies we might want to see.

Mr. Alex Atamanenko: I know there's some concern among people in the world about GE and health. We have a number of studies popping up: we have the one by Professor Séralini in France; we have Russia with the GE potato; and the U.S. and the U.K., where scientists have isolated negative impacts for health, whether it's reproduction or the liver or allergies.

Would it not be in the best interests of the industry and farmers to really look at independent studies, peer-reviewed, on that whole health aspect, because maybe there's a lot of misinformation out there? Should that not be happening, and should it not be the role of government, once and for all, to look at all of these studies independently and ask, is this detrimental to health or not?

Janice.

Ms. Janice Tranberg: I'd love to comment on that, because actually just this very week a study came out that had been commissioned by the European Commission. It took a look at over 500 independent research groups that have been involved, and these were not just public, but broader than that. This research has been going on for over 25 years and includes the broad spectrum. Again, they've come to the same conclusion, that the products currently out there are as safe as all the other products currently on our table.

Mr. Alex Atamanenko: So should we in Canada be taking a study like Professor Séralini's one in France and some of these other studies and looking at them and analyzing them on behalf of Canadian citizens and saying either these are false or there's false data, or they need further work? Should this be the role of government?

Mr. Lorne Hepworth: I would submit, Mr. Atamanenko, that it is exactly what the regulatory agencies do. They do stay on top of all the studies and work that goes on out there.

I want to pick up on your earlier comments about biotechnology being alive and well in Canada. You're right, and it's alive and well because we've had great regulation, solid science-based regulation that has been predictable and has allowed for investment.

Somehow there's the suggestion that it's our industry that was against this bill. Who appeared before this committee? Virtually every farm group that appeared before this committee was against the bill. So it's not just industry. I look at the Western Canadian Wheat Growers, the Canola Council, the Canola Growers Association, the Grain Farmers of Ontario, the food and consumer products manufacturing council, and the seed trade: all of them have the same view on it.

It was even academics who came before this committee. From the University of Saskatchewan, Dr. Phillips came before this committee and said had this bill been in place—and this is not me, this is the university speaking—the $3.3 billion, the “alive and well” investment in canola in Canada, would have been at risk.

I have one further comment, because it speaks to the work of this committee on a go-forward basis. My colleague here mentioned that the definition they use for plant biotechnology is CFIA's definition, which I totally accept. But I think what you're going to see as you go across Canada is that in plant breeding, the role of biotechnology and genomics is evolving and expanding, much like computer technology did.

As a good example, to get a base pair of DNAs done 10 or 15 years ago cost $3 million. Now you do it for $100. Since the mid-1990s, we've gone from plant breeding to transgenics, to irradiated mutagenesis, to chemical-induced mutagenesis, to marker-assisted breeding. I think what you're going to hear as a committee is more things about bioinformatics, because we spit out tremendous amounts of data now. I sit on the Genome Canada board—

● (0935)

Mr. Alex Atamanenko: I'm going to stop you there—

The Chair: The time is up. I'm just waiting for the witness to finish.

Mr. Lorne Hepworth: Sorry, Mr. Chair.

You're going to hear more about bioinformatics, molecular markers, gene stacking, tilling, targeted mutagenesis, genomics, metabolomics, proteomics, epigenomics, all of those things. That's the new world out there.

My recommendation to the committee in that regard is that if that's what's coming at us in this new world, you need to stand back and look at that. I think that's what you're going to see when you go to these labs.

The Chair: Thank you, Mr. Hepworth.

Mr. Lemieux, you have seven minutes.

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

It's an interesting meeting today, because we have two very opposing and very contrasting opinions on biotechnology. I think it's important that both sides be heard.

I want to pick up on one point before I ask my questions. There have been comments made that somehow the government is not reviewing studies, is not doing research on these products. But they do. That's what government does. They look at the body of research. There's a regulatory mechanism in place, and part of that mechanism is consulting with scientists, with the research, and with the industry. I think it's incorrect to leave the impression that this is not the case.

I think what's important for Canadians to know is that these are science-based decisions and that health and safety issues, particularly if a product is going to be in the food system or in the animal feed system, are of primary importance—not secondary importance, primary importance. That's critical.

The other thing that should come out is that on the positive side of GM and GE products, the ones that are on the market are safe. Canola is in every single grocery store. I don't think there's any consumer who feels threatened by reaching for a container of canola oil. We sell canola around the world. It's a wildly successful product, developed here in Canada, which has penetrated foreign markets. It's a boon to our agricultural industry. To somehow paint it as some sort of negative type of venture by Canada or Canadian farmers I don't think does justice to what canola has done and how canola serves the consumer and the public.

That's where I want to go with my first question. I'll direct it to Lorne.

In your report you mentioned canola, corn, and soya. Could you elaborate on that? Or could you perhaps talk about some other products where GM or GE has actually benefited the consumer and our farmers?

● (0940)

Mr. Lorne Hepworth: Thank you.

I just want to pick up on the health, safety, and environmental observation in reference to some earlier discussion—I think maybe Mr. Valeriote raised it—about where there's common ground. We have some opposing views, but I think there's a lot of common ground around here and around your table.

First and foremost, we all want to make sure that technologies, whether they're pharmaceutical drugs or GMO crops, are used properly, responsibly, and they do not put at risk the health of the public or the environment. I think there's a pile of common ground there.

I think additionally there's a pile of common ground that if this stuff is going to be sold to farmers that it needs to work, that it's efficacious, and it's not some kind of snake oil, if you like. It has to work.

With the corn, the soybeans, the canola, the uptake by farmers has been phenomenal. It was probably considered revolutionary technology in the late twenties, when corn hybrid technology came to the marketplace. It had a huge adoption rate, and this has probably even exceeded that.

And there are some new traits we talked about that are coming in those sectors. I mean, I'm from western Canada and I still farm out there. Notwithstanding that we had a huge flood out there this year that wiped out ten million acres, I farm in the bottom of the middle of the Palliser Triangle. Most years, I'll tell you, I would love to have drought-tolerant crops; we're usually so dry the trees are chasing the dogs. Drought is usually our problem there, so that technology in Canada and elsewhere in the world can bring a huge benefit.

When you talk about common ground, once again, if climate change is coming at us—and farmers deal with climate every day, it's called weather—then to some degree, not totally, this technology is very much part of the answer for how we're going to deal with climate change on a go-forward basis.

For those of you who were at our conference a couple of weeks ago, you would have heard Dr. Skole, from the University of Michigan. He said our understanding of climate change is that if you're a wheat farmer in western Canada there are two tools you're going to need: farm practices and genomics. Those were the two tools that he pointed out are pivotal.

One final comment in terms of the common ground and safety and the environment and the rest of it. Lucy referenced the work she had done at CBAC, through one of the member organizations there. They spent two years studying biotech food. This is one of the conclusions of that CBAC committee report:

> We conclude that no scientific evidence exists to suggest that GM plants and foods currently in the market pose any greater health or environmental risk than other foods.

In fact, they went on to say that arguably they “have undergone greater regulatory scrutiny than their conventional counterparts”.

I just wanted to pick up that point.

In terms of other products, Janice, did you want to...?

Ms. Janice Tranberg: I just want to mention that I was at an event that was celebrating a researcher at the University of Saskatchewan who was retiring. He made a comment that when he first came to Saskatchewan, when he drove across the fields, as he drove in he saw black, black, black—summer or fall. He said that was just ten years ago. We've now come to where you drive across Saskatchewan and you don't see that because we've been able to go to minimum and zero till. And a good part of that is due to some of the technologies we've brought forward in biotech.

Mr. Pierre Lemieux: Let me ask one last question in the few moments I have left.

Lucy, I want to ask something from your comments. Are you in favour of zero tolerance or not in favour of zero tolerance?

Ms. Lucy Sharratt: I was just pointing out that zero tolerance comes from this issue that some countries, say Canada even.... If we have not approved a GM crop for safety, then that's why zero tolerance exists, or any tolerance level. It relates to the regulatory decision. It actually has some grounds—

Mr. Pierre Lemieux: What would be your position on that, though? Do you think that policy is a good policy or not?

Ms. Lucy Sharratt: I would think it's up to countries to decide what they think is a tolerance level they can allow, either scientifically or politically. That would be based on what their population is willing to accept from contamination from a non-approved GM event, which is what we're talking about.

Mr. Pierre Lemieux: The point I want to bring up is that zero tolerance is a barrier to farmers. Let's take the whole GE and GM product and put it aside. When you look at crop handling, grain handling, it's so easy to cross-contaminate. There's a rail car. You just had soya in there and now you're putting corn in there. There's a bit of corn that was left when the soya went in. You've got a contamination problem.

Or you look at a storage facility. We just emptied the bin and there's a little bit of the previous product there. You've got a contamination problem.

When you go with zero tolerance, the problem is there's no accommodation for that, at all. It's even an enemy to organics, in a sense, because organics suffer from that. They've been so careful to grow their crop organically and there's a bit of contamination with something else on the truck or in the storage facility, or it's in the transportation systems.

● (0945)

Ms. Lucy Sharratt: It comes back to what I mentioned, which is that we really don't think that the segregation systems were given enough thought or really were invested in before the technology was allowed onto the market. There was some very necessary infrastructure. There were assumptions made that the EU opposition to genetic engineering, as it was seen, would collapse, that consumers would accept genetically engineered food, and that the controversy was going to go away. It's been a very complex controversy that continues.

Mr. Pierre Lemieux: I think there are ways around that. One of the ways around it is to work with low-level presence. Establish what's considered to be an acceptable low-level presence and then work with our trade partners on it, pointing out that when you have zero tolerance in place, you're not helping anybody. Suggest that we look at what would be considered to be acceptable low-level presence on a scientific basis.

Ms. Lucy Sharratt: If I may also respond to your question about this issue of safety, by bringing forward a critique or recommendations for improving the system for evaluating safety, we're not necessarily saying that the crops on the shelves now are not safe. That hasn't been said. New studies arising that point to potential problems are just valid scientific inquiry that needs to be pursued. There's such little publicly funded or independent science that studies warranting review are emerging just here and there. When we look at the science or this idea that Health Canada is reviewing any new science coming up, that's an assumption on our part, because that's not public information. This is one of the ongoing problems.

The fact that we're now looking at very complex genetically engineered organisms, like pigs.... And Health Canada, in 2005, abandoned the idea of developing new regulations specifically for GM animals. They say they're still developing them, yet there has been already, for a year and a half, an application in Health Canada for approval of a GM pig, for GM animals for human consumption. It's in this area that I think it's responsible to take a look at the evolving scientific knowledge and the evolving complexity of the GE organisms.

The Chair: Thank you.

Go ahead, Mr. Eyking. You have five minutes.

Hon. Mark Eyking (Sydney—Victoria, Lib.): Thank you, Chair, and thank you, guests, for coming here today.

As a farmer and a person who's worked in underdeveloped countries helping farmers in these areas, I see the need for the research we're doing and the products we're developing, especially with all the coming challenges in the world, but I don't like when they start comparing altering food to how we should increase solar panels or efficiencies in cars. There's a big difference between research in food and altering our food compared to other products. In the international scene you often see protocols and conferences put together because we get in trouble in the international scene, whether it's nuclear arms or environment or even finances. As a world, we get so far down and then we have to ratchet back. I get a sense that this biotrain is moving quite fast.

That's good in a lot of ways, but I'd like to talk about international agreements or protocol when we have a framework in place. I think, Lucy, you talked a little about that country-to-country approach, maybe through bilateral agreements or whatever, but overall, if this is going to be such a success for our population and a world success for our Canadian farmers, how do we lead as a country in setting up an international protocol, an international gateway, on how we're dealing with this on the world scene, where you have a green light-red light on how you're doing things? Is that framework there? Should it be there? Should Canada take the lead on it, instead going out on its own and doing all this research and saying it's all great and fine and dandy? The other witnesses could comment on that as well. Where's it all at on the world scene on international protocols and framework? Where's it at, and where should it be going?

Lucy, I'll start with you.

● (0950)

Ms. Lucy Sharratt: I think there are a number of platforms from which the government ends up speaking about these issues with other countries. Certainly one of the platforms that was established, as was mentioned by Monsieur Bellavance, is the Cartagena protocol on biosafety. It's a protocol on biosafety under the Convention on Biological Diversity. That protocol is established to govern the international movement of living modified organisms, GMOs. Canada signed but never ratified that agreement. This is becoming a critical issue now that Environment Canada will be asked, or could already have been asked, to decide in 120 days that GE salmon eggs could be produced in Prince Edward Island and shipped to Panama. That's international shipping of a living modified organism, yet we haven't signed the international agreement. That's one thing Canada could do to participate in an existing international forum.

Mr. Lorne Hepworth: I'm going to ask my colleague to pick up on some of the international protocols, etc. I just want to reiterate one of the points I made in the presentation relative to the role we think Canada could play in this regard. And that is for Canada to establish a low-level presence policy and then advocate that policy to the rest of the world, because we desperately need that. If half the traits in the future are going to be coming from other countries, not even relative to our member companies globally, the potential for trade disruption's going to be huge. If there was one single message—and I think the committee heard that time and time again from virtually everybody who was here—it was that we need a low-level presence policy in Canada and globally.

My colleague has worked on some of the other stuff. I'd like her to have a comment.

Ms. Janice Tranberg: A lot of international bodies are working on this. For example, under Codex Alimentarius there's the agricultural biotechnology committee. They've developed a set of guidelines and standards on how to evaluate biotechnology products. They've also developed a low-level presence annex, and this defines some of the information that needs to be developed and looked at to come up with an approval on low-level presence. These are countries from around the world.

With the Convention on Biological Diversity, the interesting thing I heard from my colleagues who were just at the meeting in Nagoya, Japan, was they talked about this year being a game-changer. This year countries around the world discussed how to make it work. It was no longer that this is not a product we don't want to bring forward; it's that biotechnology can bring solutions. So how are we going to make it work?

Another thing I want to bring up is the transboundary movement on living modified organisms, or LMOs. The industry brought together something they're calling the compact. They believe the science behind the products they've brought forward is safe, the products are safe, and they're willing to stand behind that. The development of the compact is a very clearly defined and efficient process whereby countries can bring forward claims of damage to biological diversity.

The Chair: Thank you.

I'll move to Mr. Shipley, five minutes.

Mr. Bev Shipley (Lambton—Kent—Middlesex, CPC): Thank you, Mr. Chair and witnesses.

Mr. Hepworth, in one of your overviews and in your statement you said 90% of canola, 65% of soybeans, and 65% of corn grown in Canada are GM varieties. Obviously, they're grown because farmers make a choice, they see there's an advantage to it. I haven't heard of any health issues because these are in place, whether it's with livestock or humans.

Because 65% of the soybeans we grow are modified, does it mean we are not able to export to countries around the world identity preserved beans, for example, that are not genetically modified?

On my farm, quite honestly, we tend to grow IP soybeans. They are a farmer's choice. They make that choice based on premiums and a host of other things they want to do. Of the 25 countries you've talked about, do we not have any access to those other countries because we are now a GM producer? Second, were they always GM countries, or were those countries, because of science, continuing to grow...? Is that significant because Canada has been basing its evidence and its markets only on science?

● (0955)

Mr. Lorne Hepworth: You raised a couple of good points.

First, on the 25 countries, had we been coming before you three, four, or five years ago it was even fewer, and the number of acres it represented and the number of farmers in the developing part of the world was substantively less. I raise that in the context of that curve steadily rising, 6% or 7% on a compound annual basis, something in that order.

One of the issues I also raise that we didn't have a chance to get into in any detail is that other countries might be having traits developed in seeds that we don't grow here, like eggplant or cotton or some of those kinds of things, but they could impact us because we're importers. Then this gets into low-level presence issues and synchronous approvals, all those kinds of issues.

Your point about segregation and identity preservation is a really good one, because, as I recall, when canola was first commercialized, that's how they did it. They wanted to be really careful, so it was under contract growing and identity preservation and more sophistication in the marketplace—we won't ship until other major exporters have approved, etc.

So contracts and segregation have served us well in the past and continue to serve in some of these other markets very well as well.

Ms. Lucy Sharratt: If I may say, just very quickly, segregation did not work in canola. GE canola contaminated so widely that even pedigreed and certified seed stocks could not be certified as GM-free. That's the reason why over 90% of canola is GM and you can only grow organic canola or non-GE canola in geographically isolated areas like Prince Edward Island.

Mr. Bev Shipley: Those become a choice.

Quite honestly, you're going to be a part of biotechnology. If you're going to be a part of it then we have to do it right. There have to be proper assessments, safety assessments, risk assessments on the positive and benefits, and there has to be concern also about what negative issues may come with it. That, quite honestly, is one of the issues I'd be concerned about, because I'm not so sure that we always hear both sides of a balanced story when we're trying to communicate to the consumer, to the public, and in fact likely to many in the agriculture community, the people up and down the road. I'm hoping that at some point in time maybe we can talk about how to do that better, because we cannot be just having one-sided discussions on it.

We also know that biotechnology, in terms of agriculture, from my point of view, is one of the most exciting industries to be in right now and to be looking forward, as agriculture, because of what is actually happening and the prospects for what biotechnology is going to be bringing too.

The Vice-Chair (Hon. Mark Eyking): Do you have a question? Your time is pretty well up. You're very interesting in what you're saying, but—

Mr. Bev Shipley: Thank you.

In your comments then, Mr. Hepworth, you talked about the importance of increasing synchronization of approvals, using common approaches to risk assessment. Could you just touch a bit on that before you leave?

The Vice-Chair (Hon. Mark Eyking): It has to be a very short answer.

Ms. Janice Tranberg: As an industry, we've made a commitment to seeking the approval in all the major countries where a product will be marketed. So for canola, for example, we seek approval in the major markets. We can make a submission at the same time, but if a country doesn't make an approval at the same time, that means we made a commitment not to move forward on the market and the commercialization of that product. So that could delay the commercialization of the product here in North America oftentimes by three to four years.

We feel it's very important that countries with likeminded science-based regulatory systems are able to share information and work together as they make these assessments and then also make the approvals, and that will minimize the impacts on international trade.

● (1000)

The Vice-Chair (Hon. Mark Eyking): Thank you very much.

Mr. Bev Shipley: Thank you, Mr. Chair, for your lenience.

The Vice-Chair (Hon. Mark Eyking): I've given you an extra minute, Mr. Shipley, for your Christmas present.

We're going to move on to the Bloc now, Ms. Bonsant.

[*Translation*]

Ms. France Bonsant (Compton—Stanstead, BQ): Mr. Hepworth, I would like to come back to the issue of choice for farmers. In my riding, 60% of the land is farmland, half of which are organic lands. So when you say that farmers have a choice, that is true, but when the wind blows on their organic fields or when the farmlands are situated alongside a river that floods the fields in the spring, they no longer have a choice. Why? Because the organic product that the farmer wants to sell can no longer be certified as such. Those farmers lose their land. Having a choice is not always a given.

Ms. Sharratt, there is something that I do not understand and which I would like you to explain. Why has Canada backed away from transgenic salmon, claiming that they are dangerous for the wild Atlantic salmon population? There is talk of extinction. What do these salmon do? Do they destroy the DNA of wild fish? Do they destroy their eggs? How do transgenic salmon compare to the wild variety, which is millions of years old?

[*English*]

Ms. Lucy Sharratt: Your question is what the risk questions are.

[*Translation*]

Ms. France Bonsant: Why are these salmon not dangerous for humans when they are dangerous for Atlantic salmon? There is something not right there.

[*English*]

Ms. Lucy Sharratt: It's entirely possible that Canada could approve a genetically engineered Atlantic salmon for human consumption in Canada and approve the Atlantic salmon for production and export. It doesn't matter, in this case, if it's actually safe to eat. If it causes the extinction of wild Atlantic salmon, that's a problem.

[*Translation*]

Ms. France Bonsant: Is it because they are stronger, because they eat the eggs? Or is it because fewer of the normal variety are produced and the other types of fish are declining? I have some difficulty understanding that.

[*English*]

Ms. Lucy Sharratt: There are many huge risk problems. These salmon are engineered to grow twice as fast. It's possible that they could out-compete wild salmon but also that they could be much more susceptible to disease. When you genetically engineer an organism, any number of changes could happen, and for the animals, disease susceptibility is one.

[*Translation*]

Ms. France Bonsant: Can human DNA be altered from decades and decades of consuming genetically modified animals?

I see that the witness is shaking her head.

[*English*]

Ms. Lucy Sharratt: It would not change the DNA of humans, but certainly the consumer is very aware of these risk questions with respect to genetically engineered animals. It is a complex organism we're speaking of. We haven't yet regulated a genetically engineered animal for safety. It does raise new questions about what we would say are intrinsic risks in genetic engineering, which Canadian government regulation does not recognize. We only look at the product. From what we hear, the largest scientific rationale for the Enviropig being safe to eat is that as an organism, its organs seem to be functioning, and the animal itself is healthy.

Certainly many of the critiques or questions about health data that have been raised in the past do apply and are focused on genetically engineered animals, such as these questions of changes to genomes and the increase of allergenicity. On the question of long-term testing and consumption of the product, what does it mean?

[*Translation*]

Ms. France Bonsant: No tests have been done to understand the consequences on humans of consuming genetically modified products. On Tuesday, I asked scientists a question. Over the past ten years, more and more babies have been born with more allergies, for example, peanut butter or lactose intolerance. Could scientists perhaps conduct studies on those impacts?

By changing what is normal, foetuses are also affected. Would you be in favour of such studies being carried out? In this day and age, I think that the Conservative government is more concerned by the financial health of corporations than human health. I am concerned by that.

A voice: [*Editor's Note: Inaudible*].

Ms. France Bonsant: Yes, yes, sir.

● (1005)

[*English*]

The Vice-Chair (Hon. Mark Eyking): Madame Bonsant.

[*Translation*]

Ms. France Bonsant: Yes?

[*English*]

The Vice-Chair (Hon. Mark Eyking): You have to tidy up here.

Some hon. members: Oh, oh!

[*Translation*]

Ms. France Bonsant: Okay, she will answer.

[*English*]

Ms. Lucy Sharratt: Certainly one of the major problems we see with this question of health risks is the fact that there is no post-market surveillance. Health Canada set up a post-market surveillance project and hosted an international conference and then abandoned that project of tracing and monitoring GE foods in the food system, which is what you would do for population health studies or public health studies generally. And of course mandatory labelling would be necessary.

[*Translation*]

Ms. France Bonsant: That is scary, isn't it?

[*English*]

The Vice-Chair (Hon. Mark Eyking): Now we're going back to the Conservatives.

Mr. Hoback, you have five minutes.

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

I really appreciate the work you do, Chair. You do an awesome job. I just want everybody to know that.

Some hon. members: Oh, oh!

An hon. member: Right on. Now that's a Christmas present.

Mr. Randy Hoback: I hope that's not part of my time.

The Vice-Chair (Hon. Mark Eyking): The clock was ticking. Don't push it.

Some hon. members: Oh, oh!

Mr. Randy Hoback: First of all, I want to thank all of you for coming out this close to Christmas.

This is a study that I think is so crucial and so important right now, because as we go forward we have to make sure that we as government and government officials actually understand what we need to put forward for proper regulations to ensure that we maintain protection of the consumer, the Canadian public as a whole, yet still allow an industry that's growing to continue to grow and thrive here in Canada. Otherwise, if it doesn't do it here, it will do it somewhere else.

So I guess that's where my questions will go. I'm not going to get into this debate about whether it is safe or not, or whatever. That horse left the barn 20 years ago. Basically, we have enough proof in my mind that it is safe. Yes, there might be some concerns as we move into animals and livestock, but in the same breath, if we look at the history of the science in the grain sector, there's been a fairly proven track record, in my mind.

I'll start off with you, Janice. When you look at the regulations—and I know you talk with a lot of the researchers at the U of S, which is doing an awesome job in this field with Innovation Place—what is the biggest hurdle you see they're facing, as far as bringing a new product to market is concerned, yet still making sure the product has gone through a proper process to ensure it's safe for the consumer?

Ms. Janice Tranberg: In talking to many researchers, public and private, I think the biggest challenge is really twofold: you have to look at Canadian regulations, and you also have to look at international regulations.

Canada actually has been doing a very good job, but I think there are efficiencies that could be achieved within the Canadian regulatory system. Currently we're working to delineate some of those efficiencies that could be brought together. It's about looking at the reviews and making sure that the departments who are looking at the reviews don't have overlaps, so that if one department is looking at one area, then the results and information from that area are shared across all of the departments.

So there are just basic efficiencies that could be worked on within the government, especially as we know, as Lorne has stated, there are going to be more products coming forward into the Canadian regulatory system. So now is the time to bring in those efficiencies.

Then as we look on the international side, the discussion today has very much been on low-level presence, and we really see that as key. These are products that have received 100% safety approval in at least one or more countries around the world—and that's important to remember. So we can eat them, they're safe at 100%. So when we're talking of a low-level presence, we're talking of one seed in 10,000. There have to be policies where we can manage those levels and not impede international trade.

So I think those are two key areas the government could work on to bring efficiencies.

Mr. Lorne Hepworth: Can I add to that?

In discussions I have with our member companies or their heads of research, they identify their risks into two buckets. One is the regulatory and science risk. If we're going to spend $150 million, are we going to get something that's safe and works? They're prepared to accept that risk if they can work with a science-based system to determine safety. If they're on the right track to develop the right product for consumers and farmers, and all the rest of it, they'll live and die by that.

The other risk they identify is political risk. Can we count on science-based regulatory systems around the world, or will they be impacted by politics, polling, anecdotes, and all the rest of that? That takes them to communicating with the public about the science and the complexity of the science. It is very complex subject matter. I'm a science guy, and I find this stuff pretty overwhelming. So clearly, industry has to do a better job there in communicating risks and benefits. We hear lots about risk, but less about benefits.

Secondly, as I alluded to in my remarks, the role for governments is not to be a shield for any of these products, or promote them. But when under attack they should stand up and defend their regulatory system. We have a good system. It is protecting the public's health. It is protecting the environment.

So often hear this view and that view. The average person says “Gee, I don't know”. Who are the third-party arbitrators in Canada, and reliable and highly recognized ones around the world? They are the CFIAs of the world, the Environment Canadas of the world, and the Health Canadas of the world. They need to stand up and defend the technology. If confidence breaks down in the system, the regulatory system breaks down and you have trouble bringing products forward.

Communication is a key issue at the end of the day. I'll leave it at that.

● (1010)

Ms. Lucy Sharratt: In that view, there needs to be room for an actual evaluation, moving forward, of the regulatory system; otherwise it's static. Defending a regulatory system without moving it and evolving it would not seem to be feasible.

Mr. Randy Hoback: You say it has to keep adjusting to the new technology—the new environment it's in.

The Vice-Chair (Hon. Mark Eyking): Your time is up.

Mr. Lorne Hepworth: I have a good example of that is flax.

The Vice-Chair (Hon. Mark Eyking): Thank you.

We'll go to the Liberals and Mr. Easter for five minutes.

Hon. Wayne Easter (Malpeque, Lib.): Thank you, Mr. Chair.

Thank you. I'm sorry that it's a little late, but I read the briefs and there is a lot of information here. And as Frank says, there are two solitudes. Our concern is how you bridge the gap. From our perspective, who do you believe? I'll put it that simply.

Prince Edward Island salmon was mentioned, Lucy, and I just want to refer you to what the FDA in the U.S. said on that product.

I will submit to you that non-GM canola is something we are extremely worried about in P.E.I. If GM canola got introduced in our area, we would completely lose the Japanese market, and the Japanese market is huge to us in terms of non-GMO canola and a lot of other non-GM and organic crops. The Japanese market is a premium market and important to us. And the reality is that we would lose that market just like that when they do their investigation, if there were a GM crop that could contaminate canola.

But on the Prince Edward Island salmon issue, the FDA has concluded in its analysis in the United States, AquAdvantage Salmon, on September 20.... I'll just quote what they say in this report. They conclude that food from the triploid ABT salmon “is as safe as food from conventional salmon” and that “there is a reasonable certainty of no harm from consumption of food” from this animal. They do say there should be another study performed on the allergenicity of the diploid fish and submit it for evaluation. They also talk about the adequate containment measures that appear in place in both P.E.I. and in Panama.

That's just to put that on the record that there are two sides to that story too.

Based on the hearings we held on Bill C-474, the two areas I am currently worried about are that things are moving too rapidly without perhaps the right peer review, transparency, or protective measures in place on wheat and on alfalfa.

If alfalfa were to become contaminated, you are right, we would have a real problem in terms of many of our organic markets. It's the base crop for organic production, and there don't seem to be many areas that study not only the food and health safety but the environment, the economic impact, and the impact on biodiversity.

So this is my question to you all. There are pros and cons on the biotech industry—a lot of good and also some risk. How do we get to a system? What system has to be put in place? I agree with what Frank said earlier, that the Canadian Biotechnology Advisory Committee would be extremely important. But how do we get a system in place where there can be reasonable confidence on both sides that the measures necessary are actually being implemented so they can be believed by the average person out there and by some of the decision-makers in the political process as well?

Lorne.

● (1015)

Mr. Lorne Hepworth: You raised three points: Japan, alfalfa, and a system in place.

Relative to Japan—and thanks to my colleague here, who anticipated that kind of question—the facts as we understand them are that in 2005-2006 Canada provided 71% of the world supply in the form of GM canola and Australia only provided 19%, despite being non-GM. Japan is the biggest importer of canola, and in 2006 Japan bought 42% of the world supply of canola, 1,941—

Hon. Wayne Easter: Lorne, I'll just interrupt you for a second. And your figures are right, I know that.

The difficulty on canola, though, is that there is a huge difference between the oil and the meal, and it depends what products we're shipping in there. And that's one of the difficulties. I recognize what you're saying, and those figures are accurate. But there is a huge difference to a lot of those who have this animosity towards GMs. Oil can go in, but meal or seed can't.

Mr. Lorne Hepworth: I guess at the end of the day, once again they've been mixing conventional and the GM, and Canada's been predominant there. But I hear what you're saying.

On the alfalfa, obviously it's an issue that's been raised in front of the committee, and it's one I have had some personal interest in. In a previous life, we used to harvest about 25,000 acres of alfalfa annually that we contracted with a number of farmers to grow because we operated a very large dehydration plant.

As a farmer of lots of alfalfa acres, we would have loved to have a nice, effective weed control—this is up in Ontario here, northwest of here—especially for dandelions. We were aiming primarily for the U.S. horse market, and you don't want those weeds in there, so we would have loved to have had a good weed control.

The facts, as we understand them, on Roundup Ready alfalfa are that it's found to be safe and has full food, feed, and environmental release approval in Canada; however, it cannot be sold in Canada. The variety is not registered, and the commercializing company—and they're not a member of our organization, so I can't speak for them—has indicated that it will not seek variety registration in Canada until, first, it is requested by farmers, which I think has been the standard procedure in the industry; second, there is a clear and acceptable co-existence policy developed and in place; and third, that it's fully deregulated in the U.S.

In terms of stewardship and management of the crop, the U.S. forage sector developed stewardship programs, which they feel, with proper agronomic practices, will manage gene flow in alfalfa. As we've been stating all along, a policy to manage trace or low-level presence of products for approval in one or more countries will mitigate issues with international trade. We can't stress enough the importance of that kind of policy.

● (1020)

Hon. Wayne Easter: Can Lucy make a comment here, Chair?

Ms. Lucy Sharratt: Thank you.

Certainly it's not standard practice for the industry to request farmer consultation. This is how we see one of the core issues here: farmers are not consulted before a GE crop is brought to commercialization.

As was said, in 2005 alfalfa was approved for safety, and for five years the Manitoba Forage Seed Association and other groups have been asking for some type of intervention to stop GE alfalfa. This is why it took several years of farmer protest to stop Roundup Ready wheat. This is a burden on farmers to have to be engaged like this crop by crop, if the crop looks like it's going to be a market issue.

The Vice-Chair (Hon. Mark Eyking): We're going to go back now to the government side.

Mr. Richards, you're up for five minutes.

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

Thank you for being here today.

I think we've got a fairly wide divergence of opinion here. We've got both sides of the argument, and that's kind of an interesting way of setting up a panel. It's nice to see both sides of the argument, I guess, for lack of a better way of putting it.

I'm going to ask you both, and I'll start first with CropLife and whoever would like to take the question, to sort of respond to something from the other side of the argument and I would just challenge you a little bit to think about how you would counter the other side's point of view.

I'll start with CropLife. On Tuesday, we had—I forget the university he was with—a Mr. Mauro, who had done fairly extensive studies with Roundup Ready wheat. He discussed that in quite a bit of detail. I think it's mentioned again today by Ms. Sharratt, and it's certainly in her brief as well. There is some discussion about it.

I would ask you to respond and offer your comments on the comments that have been made in terms of Roundup Ready wheat and some of the concerns around it. How would you respond to those kinds of comments, and what would your comments on them be?

Mr. Lorne Hepworth: First of all, going back in time a few years, as Lucy referenced, market acceptance wasn't there, so the Roundup Ready wheat was shelved in Canada. Having said that, we had as a guest speaker at our conference a couple of weeks ago here in Ottawa a representative of the world's largest private wheat-breeding company. He described wheat, I thought, very accurately. He described it as a technologically orphaned crop, and that's not just in Canada but in the U.S. as well. The wheat growers there are very concerned about the lack of research and development, the lack of technological innovation in wheat.

The second thing I would relate to your question is that wheat is very much on the radar screen of our member companies. There are three dimensions. It's a staple crop in the world. It's an important crop in the world: a couple of billion people rely on it for food. Farmers here probably need it as a rotation crop, albeit as one that has been very uneconomic. It's on their radar screen from the standpoint of better protection for the seed itself, from needing new products to deal with weeds and diseases and so on that arise in wheat. And then lastly there is the role it could play with regard to genomics, epigenomics, biotechnology, clever plant breeding, and all those kinds of things.

To that end, as we've examined this, I have gone down to Mexico City to look at CIMMYT, which is the Norman Borlaug research centre on corn and wheat, to see the evolution of wheat and corn over several thousands of years, and to discuss their desire to develop wheat and corn to help feed the nine billion people in the world.

I have a final comment here on this. We need to get our act together in Canada—and I think this point was made by the speaker we had—because the world is going to pass us by here, and Canadian farmers will lose on this. Recently we've seen other countries in the world, some of the ones I've talked about, going gangbusters on this technology with all the tools, biotechnological or otherwise. Australia is now into field trials on this. It may be ten or eleven years before they get anywhere, but we're close to having the world go by us on it. If you look at some of the research on wheat, it goes back in Canada. We were the breadbasket of the world. Can we not reclaim that glory in the interest of consumers and farmers? Western Canada was seen as the breadbasket of the world.

So the simple answer is it's technologically orphaned. There's a great opportunity there and an important opportunity in terms of feeding the world and developing drought tolerance and some of those important attributes.

● (1025)

The Vice-Chair (Hon. Mark Eyking): Mr. Richards, you still have a half-minute or so.

Mr. Blake Richards: Thank you.

You mentioned wheat in terms of western Canada, and obviously one of the challenges in western Canada when it comes to wheat is that the Wheat Board is no help to western farmers for that particular crop because of the fact that they lose the opportunity to market it to international markets.

I also wanted to give Ms. Sharratt a chance to respond to something from the other side. Certainly the example of canola is one that is put out there as a success story. Over 90% of the canola—

The Vice-Chair (Hon. Mark Eyking): You have to be quick, Mr. Richards.

Mr. Blake Richards: —in Canada is from GM varieties. There have obviously been all kinds of benefits to our farmers from canola. It really has been, by all accounts, a success story. I would just be interested in hearing how you would respond to that. You certainly seem to be of the point of view that we shouldn't be looking at GM types of varieties. How would you respond to the great success story that canola has been?

Ms. Lucy Sharratt: Certainly we would ask if a lot of the success of canola in Canada is due not to the GE trait of herbicide tolerance but in fact to the quality of the varieties. This is actually an issue, because you have companies that own some of the best germplasm that are incorporating GE traits, and with canola there's no access to that germplasm without its being twinned with a GE trait. So the success of canola can be seen actually outside of the GE trait.

This is also why we would be concerned about wheat. The largest seed and biotechnology corporation in the world, Monsanto—but also others—has pledged to develop GE in wheat, and that's of course because it's a world staple crop. So even if the world doesn't want it—and there is protest in Australia from farmers and consumers about this ongoing wheat pressure—these are the world's staple crops and ancient grains that farmers use around the world to feed their communities. If the best germplasm becomes owned by those companies and twinned with GE, then there will be a diminishment, perhaps, of choice for farmers.

The Vice-Chair (Hon. Mark Eyking): Thank you very much.

Hon. Wayne Easter: Mr. Chair, I have a point of information here, because I think the wrong impression was left by Mr. Richards.

If the Wheat Board is so wrong, then how come 80% of the directors elected—eight out of the ten farmer-elected directors—were pro-board?

The Vice-Chair (Hon. Mark Eyking): Well, we're not going to get into the Wheat Board now.

Hon. Wayne Easter: Results just came in last Saturday. So stop the condemnation of the Wheat Board. Farmers have spoken, and they said they want the board.

The Vice-Chair (Hon. Mark Eyking): Okay.

Almost everybody in this committee has asked a question except Mr. Storseth, so you've got the last five minutes. Let's tidy it up. This is the last question of the year. It's going to be a dandy.

Mr. Brian Storseth (Westlock—St. Paul, CPC): Thank you very much, Mr. Chair.

Mr. Francis Valeriote: Can I ask one more question after he's done?

The Vice-Chair (Hon. Mark Eyking): Well, if the committee agrees, we'll keep going.

Mr. Brian Storseth: That's as long as it doesn't take away from my time, nor Wayne's partisan intervention.

Some hon. members: Oh, oh!

Mr. Brian Storseth: Thank you guys very much for coming today.

Just to follow up, Ms. Sharratt, on your comments, according to the other comments that you made in regard to Mr. Atamanenko's bill, would not the success of canola for western Canadian producers also be owing to price and to markets available to them as well?

Ms. Lucy Sharratt: Well, certainly we would look at the problem of organic grain farmers actually losing canola as a market and rotation crop, which caused them economic harm. These are the same farmers who then used flax in their rotation, and it was contaminated—

Mr. Brian Storseth: I'm sorry; I only have five minutes.

Mr. Richards asked about the success of canola. Canola has been a success to western Canadian farmers. Other than the scientific argument, which you did a good job in discussing, would you not also attribute part of its success to the price and the availability of markets to our farmers out west as well?

Ms. Lucy Sharratt: Sure. Farmers would know what that is in terms of a market crop.

Mr. Brian Storseth: Exactly. It's one of the best marketable crops, especially since wheat isn't available because the western Canadian Wheat Board stifles that availability of marketing.

In fact, when we talk about wheat and about genetically modified products and science-based research, a lot of the research into wheat and different wheat varieties has to be done in the United States, even when it's western Canadian and Saskatchewan researchers who are developing it. We've had them before committee before, and they say that because the Wheat Board doesn't allow them to introduce the best varieties to western Canadian farmers, it inhibits their ability to grow it, which has led to the decrease of wheat as a crop availability to many of the farmers in my area.

The importance of genetics is a very interesting discussion. I've got a lot of cow and calf guys in my area, and genetics are incredibly important to the sales that we do to Australia and to other developing countries in the world when it comes to these kinds of markets, and these are countries that we're competing against. In my area we had five or six years of drought before we got any rain at all this year in eastern Alberta, and I've got to tell you that without more vigorous strains of canola and every other kind of product out there, a lot of my guys say they would not be getting the yields they're currently getting, which goes to their farm income. A lot of my guys are telling me that without the genetically modified canola and the other varieties that allow them to have zero till and also increase their yield, they would not be able to survive.

I would ask Mr. Hepworth to respond. Do you agree with that?

Second, because I will be running out of time, I'd like you to also talk about the role of science and how important it is to our agricultural producers.

You can answer those two questions, but I'll also put in a comment. Organic farmers make a choice. We have to respect that choice and try to find ways in which we can respect that choice and not inhibit their ability to grow organically, but at the same time, the vast majority of my farmers—

● (1030)

The Vice-Chair (Hon. Mark Eyking): Mr. Storseth, I'm giving you a suggestion that you should get your questions in, because—

Mr. Brian Storseth: Oh, I have them in. I'm just trying to—

The Vice-Chair (Hon. Mark Eyking): Give yourself time.

Mr. Brian Storseth: I appreciate that. I have the questions in—

The Vice-Chair (Hon. Mark Eyking): I've stopped the clock. It's okay.

Mr. Brian Storseth: I'm just trying to sound good at this point in time.

Some hon. members: Oh, oh!

Mr. Brian Storseth: You can go ahead and answer. Thank you, Mr. Hepworth.

Mr. Lorne Hepworth: I have just one quick observation, relative to the Wheat Board. We as an organization don't get involved in that. But the discussion I heard here reminded me of the old adage, maybe out in western Canada, that wheat looks to still be 13% protein and 87% politics.

On top of what I said earlier, wheat is only going to be introduced if the market is ready for it.

On what this technology has brought to the farmer, when the canola growers were before the committee on Bill C-474, Rick White, their executive director.... We can all trot studies out, but it's the farmer who really is the ultimate arbiter. His own comment was that relative to yields, there is a 30% to 40% increase with GMOs. I think he also went on to say, and I think you referenced it, that the hardiness in the face of sometimes harsh environmental conditions is when it really shines.

My final point, with respect to science and agricultural research and the farm community—and it goes back to the many careers I've had—is that the one constant with farmers is that they recognize the value of research, both from a publicly funded standpoint and a privately funded standpoint. They know, ultimately, the great benefits it brings. You can find studies that show that it is a 15-to-1 return or a 20-to-1 return.

I was at a meeting in Saskatoon the other day when the guru on the pulse stuff had numbers about the returns on pulses. Because of these innovations over the years, to grow the same amount of crop today as was grown in 1961, with those yields, we would have had to have maybe 250 million more acres in cultivation than we have today. It really speaks to innovation.

There are nine billion people and counting to feed. That's the challenge.

● (1035)

The Chair: We have some time, so we can go to a question.

Mr. Francis Valeriote: I just have one question. It really condenses down to this for me in one large respect.

This is not a situation of the horse and wagon going out of existence because of the introduction of the car.

Look, I favour the biotech industry to the degree that it is going to help us in the future. My concern is species extinction. It really is. What I see is not the car out-competing the horse and wagon. I see the car driving over top and taking out of existence the horse and wagon.

Janice, you referred to the compact. I read the compact. It was sent to me, and I read it.

People don't want compensation if their alfalfa crops are destroyed. They want to know that they can continue to grow their alfalfa crops safely, without the threat of extinction. It really boils down to that.

If we did form this committee, this national Canadian biotech advisory committee, I want to know what you could bring to the table that would say to Lucy and the people she represents that would say "We will protect you from extinction, not compensate you, but protect you from extinction".

That's unless it's by competition. Competition is another story. I'm talking about extinction of species here.

Mr. Lorne Hepworth: One of the observations I would make is that if you want to feed the population of the world and preserve species and biodiversity, then I think we have to seriously consider biotechnology as well as other technologies and farming practices.

If you just freeze technology today, as I just referenced, it is going to take a pile of land to produce the same amount of food to feed that population—a pile of land. So you're going to put species at risk. You're going to put water at risk, because you're going to have to look at irrigation to a bigger degree than you might if you had drought tolerance.

I'm with you on the common ground. If you want to preserve species and you want to preserve biodiversity, then we're going to have to look at getting more crop per drop and more yield per acre. Otherwise, we're going to have to plow down a few more grasslands and forests.

Ms. Lucy Sharratt: That's highly problematic.

In terms of the agriculture right now that's supported by genetic engineering, if we look at Brazil, there's a huge amount of genetically engineered, herbicide-tolerant soy being grown for animal feed. That is not about feeding the world. It's actually taking space from the rainforest. There is a serious problem of biodiversity that's confronted by some of that agricultural model.

More than that, there are many options open for feeding the world. This biotechnology doesn't have to be one of them. In fact, it causes some of these very serious problems that really would make it much harder for communities to feed themselves.

The Chair: Okay. Mr. Hoback, you have one question.

Mr. Randy Hoback: It's a quick comment on Brazil.

I've been down there three times, and your comments on rainforests are not a fair comment on Brazil. When I was down there in the early 2000s, they were looking at the GMO beans. At the time it wasn't allowed, but they were growing them anyway. They were pulling them in from other countries.

Don't throw the rainforest story at me, because I don't buy it. If you look at the tonnage that's coming out of Brazil now, it's based on *cerrado* land, where they've learned how to farm that land, not rainforest land.

Ms. Lucy Sharratt: That *cerrado* land is also biodiverse land. This is the problem too, that as we—

Mr. Randy Hoback: Is it a problem though; Mr. Hepworth made the point. You have a situation where we're going to have people starving. We're going to look at the world in the future and say we are going to feed them. How are we going to do that? Are we going to do it by ripping it all up and growing every acre where we think we can grow something, or are we going to look at new technologies that will make more efficient use of the land we have right now?

Those decisions have to be made. Mr. Valeriote made a comment about protecting the existing. I worked for a company called Flexicon. It grew based on an air seeder replacing the hoe drill. A lot of people out there are saying maybe we should have protected the hoe drill forever. Had we done that, we would have seen more summer fallow acres. We would have seen more harm done to the environment based on nostalgia.

When I look at crops and other technologies coming in, I look at them in the same light. In the same way, if a farmer still wants to use a hoe drill, he can use a hoe drill—that's up to him. He has those options. But you don't restrict new technologies based on fear.

That's a concern I have with a lot of associations and groups, especially in Europe, because I used to spend a lot of time in Europe. They ignored the science altogether and they raised money for their NGOs based on fear. That was wrong.

Mr. Hepworth, how do we prevent that from happening again? As we look at new technologies, how do we ensure the facts get out in such a way that people can say it's fair, reasonable, and not based on fear?

● (1040)

Mr. Lorne Hepworth: Just as a quick answer, number one is about communication. It's an important issue for us. I know we have a responsibility and a bigger job to do. It goes back to government having a role to defend and support and keep current their regulatory system.

I want to pick up on one quick comment on Brazil. I talked about how the world could pass us by if we're not really nimble and look at how we enable—not disable—technology and not sacrifice health, safety, the environment, and all those kinds of things. I hear the commitment the government is making to Embrapa, the government research unit there—wow, you talk about how they might blow by us. Huge dollars are going into Embrapa to come up with innovations and new practices.

We've been nimble. We've got great success stories. But boy, we cannot rest on our laurels, given what's coming at us out there.

The Chair: Thank you.

Mr. Atamanenko, you have a quick question?

Mr. Brian Storseth: A point of information. Mr. Chair.

I sat here and politely waited for an opportunity to respond to Mr. Easter's comment to Mr. Richards, but I would like to say I know the hundreds of Wheat Board-eligible voters in Regina, Calgary, and Edmonton thank him for standing up for their right to vote even after they've retired from farming.

Mr. Alex Atamanenko: Just a—

The Chair: Mr. Atamanenko, do you have a question?

Mr. Alex Atamanenko: This is my last question.

We talk about feeding the world. We talk about new technology that will improve the lot of people. We've seen in Mexico, which was a self-sufficient country with regard to corn, millions of farmers have been forced off the land because of imported corn, some of it genetically modified. Now they are no longer able to feed themselves.

In India we've seen farmers who had been growing cotton, and when GE cotton was introduced, something like 160,000 people committed suicide because the crops failed because of the control of GE cotton.

Many African countries are no longer self-sufficient in rice because of world trade agreements where cheap, subsidized rice is coming in, forcing them off the land. I was at a conference here in Ottawa—and maybe, Lucy, you could give me the details or the name—but I asked a scientist—

Mr. Randy Hoback: Point of order. Can you table that report where 160,000 people were killed?

Mr. Alex Atamanenko: I'll find that information for you.

I asked the person who was speaking at the conference, “Do you think we can feed the world organically?” He said yes. He represented the Union of Concerned Scientists.

Lucy, maybe you can give a quick answer on that.

Ms. Lucy Sharratt: The solutions to world hunger have always been before us. It's a political, social, and economic problem. Now we see that the farmers in Africa and Asia we are connected with are fighting the introduction of genetic engineering. They are very concerned that it will create dependency on patented seeds from corporations.

The solution to world hunger lies with farmers around the world and the diversity of the seeds they have. They already have the solution. It's a local solution. It doesn't come from a laboratory or an international biotechnology company.

The Chair: Thank you very much.

We have come to the end of our meeting. I want to once again thank our witnesses for being here.

I would also like to wish all of you a very merry Christmas and a happy new year.

Hon. Mark Eyking: I'd like to thank Chloé for the work she's done. As everybody knows, she's expecting a child and leaving us for a while. I hope we didn't cause too much stress.

On behalf of the committee I wish her well and thank her for all the hard work she has done. We welcome David to the table at the next meeting.

● (1045)

The Chair: Mr. Eyking, that was next on my list to speak to, but I appreciate you doing that. That's okay.

We wish Chloé and her new baby the very best.

The Clerk of the Committee (Ms. Chloé O'Shaughnessy): Thank you very much.

The Chair: I'll see you all in February. Thanks again.

The meeting is adjourned.

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