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Chair

Mr. Larry Miller

Standing Committee on Agriculture and Agri-Food

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● (1530)

[*English*]

The Chair (Mr. Larry Miller (Bruce—Grey—Owen Sound, CPC)): We'll call our meeting to order.

I'd like to welcome our witnesses here, Dr. Fraser and Dr. Phillips.

Dr. Evan Fraser (Associate Professor, Canada Research Chair, Department of Geography, University of Guelph, As an Individual): It's absolutely my pleasure, and thank you very much for your time.

Is this adequate as a sound check for you guys or should I keep talking?

The Chair: Keep talking for a second.

Dr. Evan Fraser: My background is in geography. I'm fairly new to Canada. Although I'm Canadian by upbringing, I have spent most of the last 10 years working in the United Kingdom, and only came to the University of Guelph about a year ago.

The Chair: Okay, Mr. Fraser.

Mr. Phillips, if we could ask you to do the same...?

Dr. Peter W.B. Phillips (Professor, Johnson-Shoyama Graduate School of Public Policy, University of Saskatchewan): It's a pleasure to be here for the third time in a year on different issues. Today I'm being beamed in from Vancouver, where I am co-chairing the GM Coexistence Conference. I'll talk about that shortly.

The Chair: Thank you very much to both of you for appearing before us today.

Dr. Phillips, you get to be the first presenter, for 10 minutes or less.

Dr. Peter W.B. Phillips: Let me make four or five key points. The first is that science, technology, and innovation is, has been, and should be a critical part of federal policy. I think over the last 20 to 30 years there's been a diminution of its role in driving policy options and policy solutions. So I applaud you for focusing in on science and innovation as a critical part of the GF 2.

Secondly, just to remind you where I come from, I'm a professor of public policy. I study innovation as it relates to the agrifood system. So much of what I'm going to talk about, I write about and publish on a regular basis. So if anything tweaks your interest, you can find background information.

The third thing is I think it's important when we talk about innovation in the agrifood system in Canada that we keep two realities in mind. The first is that while we perceive your competition to be Chinese and Brazilian and American farmers, more fundamentally, your competition in terms of accessing land, labour, and capital to keep the industry vibrant and growing in Canada is other sectors in the Canadian economy. So it's not only important to be price competitive with other exporters, it's important that the sector be able to generate enough wealth from its use of its resources to sustain that use of those resources in this sector. Right now there are major parts of the Canadian agrifood industry that don't generate enough value to sustain the ongoing use of the land, labour, and capital, especially the mobile labour and the mobile capital.

The second point is that much of what we're talking about is fenced around by distorted policies around the world. So as we think about science and innovation, we're fundamentally going to have to worry about where it fits in the context of international trade. One of the impacts of that is that pretty much universally around the world we're not investing enough in the basic and applied sciences in the agrifood world.

The simplest test of that is that the return on investment for directed agrifood investment is running around 50% to 70%. We'd all love to get 50% ROI from our investments, but much of that is dispersed among a large group of people, so to have the ability to actually extract that and pay for the investment is very difficult.

The Canadian government has accepted innovation as a critical part of the Canadian economy's future, but if there's a problem, it's that agriculture, for some reason, either by choice or by chance, seems to have been partially carved out of that vision. Many of the things that are relevant to agriculture—the programs, the services, the investment pools—are not eligible for R and D and basic science research in the agrifood area, and that's a major concern. So the Canadian government is in the right space, but the agrifood policy area in many ways has been carved out.

As you go through your review, you're probably going to get a lot of advice, free or otherwise, about where Canada should put its resources. I often suggest to anybody who thinks about innovation policy to think about four Ps.

The traditional economists will say all we need to do is get the prices right, and the government's role should be pretty minimalist—don't do any intervention, just make sure the prices are right so that you get rid of all kinds of perceived distortions in the marketplace. That is an important element to it, but that's the base. Correct prices will bring forward investment, but not necessarily investment that will keep this industry viable.

There are three other Ps that really matter. There's place. Most of the really interesting innovation that comes out of the agrifood world and virtually every other sector is in agglomerations of research communities, users, consumers. So it's the cluster model. Place is a critical part, but place isn't enough anymore.

The second part is processes, innovation systems. There are natural flows of information that are important to converting basic science into applied science, into application and use. We have some very good examples in Canada and very good networks between Canada and the world that bring much of that technology into the Canadian context and use it for industrial purposes.

The fourth P that a lot of people talk about is creativity—the creatives, the people who make it happen. So it's not just about place, it's not just about getting the macro prices right, it's not just about getting a whole bunch of institutions in place. It's about attracting and retaining and mobilizing and enabling the scientists and scholars and entrepreneurs to actually do what they do best, which is bring new things to use.

● (1535)

I think you're going to be posed with policies right across that piece. I think those four Ps help, in a way, to define what kinds of policy options may make some sense in the broad area of agrifood research.

In the first instance, there probably needs to be less pulling away from basic and early applied research by the federal system. There has been a pullback, and that is partly what the Jenkins report and some of the advice coming from STIC are about. Right now we are very passive in the way we assist firms and industries to invest in development and innovation. There's a lot more federal capacity—be it through the Ag Canada research centres or the National Research Council institutes—where the federal government could be a critical player.

There are three or four elements about the federal investments that I want to quickly touch on.

When we last talked I laid out some of my concerns about the changes in the way Ag Canada and some federal programming had been operating that had been sort of cutting out agriculture as a priority area. There has been an additional change to that, in that the National Research Council is now talking about substantially changing the way it operates institutes.

I can speak with a fairly high degree of confidence that many of the important innovations in the agrifood world, for which Canada was ground zero, were inextricably linked to the capacity and the mobilization of knowledge from the NRC, particularly PBI in Saskatoon, and others. If the institutes die or change into downstream, project-based ventures, I think you're going to lose some very important strategic actors in the system.

Federal research effort is pretty diffuse, not only through the undirected grants, but even at the operational level in the intramural research between departments and agencies. It doesn't get together very well. Even within the same department across different divisions or sectors, they have difficulty working together. I think that's a shame in a country this small with this need for science in its industry.

Second, we're becoming too short term. We're moving from seven- to 10-year planning horizons to one- to two-year planning horizons. Our main competitor in many of our product lines is Australia. They took the lessons we showed them in the centres of excellence program and embedded them system-wide in the agrifood system through the GRDC. I think we should be re-examining our horizons there.

Third, there's the real challenge that we tend to spread our capital too thinly. We want to do something in every community. There are natural agglomerations. They are natural places where things happen. You don't have to choose them. The industry and the commodity groups have chosen them for you, so you just need to support and assist them. The artificial pulling apart of capacity is a dangerous policy area, and there are some opportunities there.

Another area I talked about before and won't belabour is that intellectual property is a critical part of the future of agrifood: brands, patents, and plant breeders' rights. We have most of the bits there, but we could do more. The one big concern I have is that once we have things that have intellectual property value, we have great difficulty in partnerships within the public domain. I had a student look at a recent partnership in Saskatoon that comprised public institutions using public funds. They had over 150 pieces of intellectual property, but they couldn't come to an agreement to pool them and exploit them as a common resource. That's a major failing of a governing system.

The final point I want to make is about regulation and governance. If the Canadian agrifood industry is going to thrive in the 21st century, it will have to differentiate and exploit value wherever it is. That means we'll have supply chains for commodities and products that are GM or GM-free, organic, and halal. They'll have unique functional attributes, and we don't have regulatory and supply chain systems in place to currently handle them.

The conference I'm now at in Vancouver is an international conference of regulators and industrial people from pretty much across the agrifood system around the world, and we're all facing the same problem. Canada can and should be a leader in that policy debate, and I will give you a symptom of the challenge.

● (1540)

It was next to impossible to get some of the key informants and leaders in the Canadian regulatory system to engage in the dialogue in Vancouver. I had no problem getting the Europeans, the Brazilians, the Australians, or the Americans to turn up, but the Canadians just didn't turn up. They all got their marching orders on Monday this week. We've been planning this conference and talking to them for over a year.

So here's an opportunity right in our backyard, where we could have taken a leadership role in defining the debate about how the system will differentiate products and sustain value in all these competitive but parallel supply chains.

In conclusion, I think you have a really important topic here. Innovation is the future of agriculture. It's not about divvying up the profits and trying to maintain markets. It's about trying to make, create, and innovate within a whole variety of technology and product market categories.

I thank you for inviting me, and I'll pass it over to my colleague.

The Chair: Thank you.

Mr. Fraser, from the University of Guelph, has 10 minutes or less, please.

Dr. Evan Fraser: I passed along some brief illustrations that I was going to use for my talk. Do you have access to those in front of you, or should I just go without them?

The Chair: Yes, I believe we do.

Dr. Evan Fraser: I'll direct your attention to some of those illustrations as I work along.

I have to begin with a caveat. I haven't lived in Canada for much of the last 10 years, and I'm not an expert on agricultural policy. My training is on global food security. So my hope is to give you some broad contextual issues and maybe a way of thinking about agricultural policy from a very broad and global perspective.

The second illustration I sent includes some data from the United Nations food price index. It shows why I'm concerned about global food security in the 21st century. You can see two extraordinary price spikes in 2008 and again last year .

● (1545)

The Chair: Mr. Fraser, as long as you're sticking to the topic at hand on innovation, carry on. This isn't really about agriculture policy. It is, in general terms, but the topic we're on is innovation.

Dr. Evan Fraser: Fair enough. Thanks for that.

The point I'd like to link to innovation, though, is that we need to develop a broad range of policy platforms in order to prepare for what many business experts and scientists are describing as an extraordinary crisis that seems to be unfolding. There are a number of places around the world that are struggling with food crises. I think Canadian agricultural policy has a strong role to play in addressing this global crisis, which cuts through our Canadian system as well.

I'd like to direct my attention to four broad areas. The first broad strategy, which gets discussed at a range of fora, including business and scientific groups at the grassroots level, is that we need to be investing in science and technology to boost productivity.

Europe has tripled productivity over the last 50 years. Other data show how productivity and investment in Africa have resulted in 1,000 kilograms of grain per hectare over the last 50 years. We see that the green revolution has worked extraordinarily well in some parts of the world but not in others.

This applies to Canada as well. When I was working in the U.K., the Department for International Development, DFID, and the DEFRA, the Department for Environment, Food and Rural Affairs, were working together to develop science and innovation platforms that drew on western academic expertise to address global food security.

If you have the opportunity to think broadly and at a global scale about the Growing Forward 2 program, I would encourage you to look for opportunities to develop new partnerships that might result in new technologies capable of being applied at the grassroots level in different parts of the world.

There's a strong argument throughout the literature that we need more research and innovation to further government regulation for environmental management. This cuts through all the debates that I've been part of. We get a strong sense of this when we start looking at things like nutrient run-offs from the livestock industry. We need a strong government mandate to develop tougher environmental regulations.

The third type of strategy related to the global food crisis is that we need to develop technologies to store food better. This is an extraordinarily important point that has social policy, engineering, and technical aspects to it. We need better technologies to store food. We also need to understand the scale at which we need to store food.

I wanted to highlight the importance of storing food in ancient societies and to link that to agricultural policy. There is the biblical story of Pharaoh's dream, where Pharaoh dreams of seven good years followed by seven bad years. The public policy advice Pharaoh adopted was to develop infrastructure and store food. We don't do that anywhere near enough. I think the world has forgotten this lesson—it's embarked on a just-in-time food system. For six years we've eaten at a global scale more than we have produced. This is a mistake.

The latest United Nations report on the global food crisis says that the world does not have enough food in its reserves to survive a bad harvest without markets dissolving into significant turmoil and volatility.

● (1550)

The fourth and final solution that is debated about the global food crisis and the sort of science and technology public policy we ought to be embarked on in order to prepare proactively for what some people are calling “a looming crisis” is that we need to do a better job of creating alternative food systems that sit alongside the mainstream or global food system. This is sometimes called the local food movement.

To me, there are two very important reasons the local food movement is going to be critical in the next generation. First of all, it increases the level of literacy among people to food issues. Second, the local food movement, local food systems, provide an insurance policy or a plan B, a buffer that separates the urban consumer from the vagaries of the international market. If the predictions are correct and over the next generation we see radically increasing prices in food, radically more volatile food prices, if these start having the expected political ramifications, we will be glad to have maintained these alternative food systems.

On my last slide I've tried to lay out the four broad policy arenas that are talked about with some degree of seriousness—a strong degree of seriousness—by activists, business leaders, and academics, as a way of proactively preparing ourselves for what some people call the perfect storm of problems that will come in the next generation.

I would like to leave you with one message. If you have the opportunity in deliberating on the Growing Forward 2 program to think globally and holistically, we need strategic investments across these four sectors.

We need strategic investments in science and technology, but emphasizing links between scientists and farmers from around the world. That requires some creative problem solving on the part of different institutions.

We need the managerial and bureaucratic solutions. We need the alternative solutions. And we need to understand how much, and where, food can be stored efficiently.

We need essentially a portfolio of strategies in order to protect ourselves and protect our food system.

In my last few breaths here I would like to say one thing, and that is I think Canada's role in the international food system will grow over the next generation. Our role as a food producer and a food exporter—our resource base—means that as the international food system comes in for what most expect will be some fairly turbulent times, Canada's role will grow. I think this represents a core opportunity for the Canadian agrifood business, as well as a challenge to our international development and humanitarian responsibilities. These things should, and can, be brought together through strategic investments in the four areas I have laid out.

Thank you very much.

The Chair: Okay, thank you very much.

We'll now open questioning to Mr. Rousseau.

As a reminder to the committee, there's a list of witnesses that have been placed before you by the clerk. Perhaps in the course of the meeting you might get a chance to look at that and at the very end of the meeting we'll get a bit of direction as to how long we will take on the study of innovation.

We'll come back to that.

Mr. Rousseau.

[*Translation*]

Mr. Jean Rousseau (Compton—Stanstead, NDP): Thank you, Mr. Chairman.

I also thank both of you for your fascinating and enthusiastic testimony.

My question is for Mr. Fraser and Mr. Phillips.

First, Mr. Phillips, do you think that research in Canada should increasingly have as its objective ensuring the food sovereignty of all Canadians? What type of research would this be?

[*English*]

Dr. Peter W.B. Phillips: You need a portfolio of research in the context of the agrifood system. I'm always nervous about a grow local food sovereignty model, in that we are a very large producer on per capita terms of many foodstuffs, which we could never consume locally. So we need to be able to access the things we can't produce effectively and efficiently in Canada—bananas, a lot of the tropical fruits and vegetables, and many of the foodstuffs that just don't fit within either our industrial system or agro-environmental system. But we also need to maintain the competitiveness and the capacity to sustainably produce large volumes of competitively priced grains, oilseeds, red meats, and a variety of other less traditional but very important high-value-added activities.

Environmental policy is an inextricable part of that. It sometimes is explicitly environmental, and sometimes it's simply embedded and embodied in the research around the seed or the animal itself. Reducing waste in the food system, which my colleague had mentioned.... We've got the deputy director general of the FAO who just gave a speech a few minutes ago, and she pointed out that 30% of the world's food that is produced is never consumed by anything that adds value, an animal or a human being. It's wasted. And that's not just in developing countries; that's in many developed nations. Canada is actually on the better end of that spectrum.

So if we could reduce food loses, that has strong environmental effects. There are some areas where sometimes the food losses might be more mechanical than biological—the cold chains and other mechanisms. Sometimes it's dealing with the food in the field. Sometimes it's dealing with the seed in the input side that may reduce the susceptibility of the plants or the animals to disease and wastage in the food chain.

I think the environment is a critical part, but my strong view.... And this is partly a western Canadian view, and I respect that—in western Canada in particular the agrifood system is almost universally export focused; the volumes that are produced are inappropriate to the domestic demands of a population of about 33 million people. My strong view is that the export focus part of the agrifood economy does need to be environmentally sound, but it also needs to be moving towards being competitive with the leading edge of the global agrifood system.

● (1555)

[*Translation*]

Mr. Jean Rousseau: Mr. Fraser, I would like to know your opinion on the same topic, please.

[*English*]

Dr. Evan Fraser: I'll come back to my point that I think confirms what we just heard. I think obviously the Canadian agricultural system is geared towards export. I think it will increasingly orient itself towards that, and I think that's appropriate. Simultaneously, I think we need to be maintaining local supply chains, local food sovereignty, as an insurance policy, as I said, or as a plan B that acts as a buffer between the vagaries of the international market and the individual consumer. I think this is that portfolio approach. The sensible portfolio manager will try to create a high-returns/low-risk portfolio that will have adequate cash reserves to maintain a client through tough economic times. I think our food system has to be seen in a similar way. We need the high productivity systems. We need to have tough environmental legislation to protect them. We need to maintain food sovereignty at a local level, which is a lower productivity system but reduces risk, and we need better food storage to act as our bag of bullion that we hide under the floor boards to keep us when things go really badly.

The Chair: Thank you very much.

We'll now move to Mr. Lemieux for five minutes.

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

I would like to thank our witnesses for being here.

Perhaps I'll start with Dr. Fraser. You spoke about concerns with respect to food storage and food security. I'd like to know where you would see science and innovation fitting in here. I was looking through your slides and I noticed there was a photo of a storage bag that was more impervious to rodents and it protected the seed from rot. That's probably a small science and innovation type of project, but I'm wondering how you see science and innovation contributing to what it is you think the government should be addressing.

Dr. Evan Fraser: Thank you for that question, and thank you for drawing attention to that example.

That is, as you said, a small-scale example of a piece of technology that was developed in partnership between western academics and small-scale farmers in India. It was designed to overcome a local constraint in a cost-effective, appropriate way, and it's had a big impact on the lives of the people who have adopted that technology in Asia. It has generated a productive agribusiness, I believe, in North America.

There are so many questions that we don't have answers to, about where we should store food, how much food we should store, and what are the most appropriate methods to store it. So there are questions of how much food should we store.

We don't want to over-insure ourselves. We also don't want to under-insure ourselves. So there are a tremendous number of scientific questions that have to be answered in that regard.

In terms of how to store food, we have 20 years of experience with the United Nations strategy grain reserve policy, which paid African governments large amounts of money to establish huge grain silos, often outside of capital cities. That policy, by and large, failed.

● (1600)

Mr. Pierre Lemieux: Could I just interrupt for a moment? When you're talking about those kinds of policies, do you see those as being agricultural focused policies, like something we would include under Growing Forward 2? Or do you see those as larger government policies, for example, storing food, infrastructure that's related to storing of food, etc.?

Dr. Evan Fraser: The short answer, I'm afraid, is both. The agricultural side of it is this. What are the engineering facilities? What are the technologies that are required to store that kind of food? Should that food be stored close to farmers or should it be stored close to consumers? But then answering those questions I think requires a greater degree of cross-departmental collaboration among different agencies of government.

I alluded to that earlier by saying that in my experience in the U. K., there is significant collaboration between the equivalent of Agriculture and Agri-Food Canada and the equivalent of CIDA, so it's DEFRA and DFID, working together on addressing both the technical agronomic aspects of these questions as well as the larger-scale governance issues of these questions.

Mr. Pierre Lemieux: Okay, thanks.

I only have a few moments left. I'll ask Dr. Phillips a question.

I understand you have an expertise in biotechnology. This committee did a study on biotechnology just before the last election. I'm wondering if you can give us some concrete examples of where science and innovation, with respect to biotechnology, has quantifiably helped farmers, food production, lowering input costs, those types of things.

Dr. Peter W.B. Phillips: Yes, definitely.

My colleagues and I did a major study of the introduction and adaptation and use of canola. We have currently three main herbicide-tolerant platforms: two that are transgenic; one that is mutagenic. If you take the three of them together, because they're all complementary and competing technologies, that set of technologies has generated—I'm having to grab the numbers out of the air at this point, and I can send you the studies that we've published—I think it was in the range of $1.5 billion of producer profit over a 10-year period, at the operational level. These aren't doubling your revenue base, but they're adding 7% to 10% to your margins. It generated significant research that created jobs in the industry. It created value that remained within the Canadian supply chain as these products moved to markets. We went from a production base that was constrained by a technology of 7 million to 9 million acres to now what is in the range of 14 million to 18 million acres. So the actual acreage grew because the technology had reduced the impediments.

That technology alone generated significant value to consumers, both domestically and, more importantly, internationally, as prices were pulled down from what they would have otherwise been. Over and above that, because the technologies brought into use new chemicals that had lower EIQs, or environmental impact quotients, they lasted for less time in the environment, and when they were in the environment they had less chance of emerging into the aquatic and bird populations. The environmental footprint of the larger area is lower than the smaller area we used to produce.

So there's an example of where a Canadian-led technology, developed using Canadian leadership from Agriculture Canada and NRC and Canadian funds from various programs, has demonstrably changed valued addition throughout the world, and it has sustained and converted canola into a different kind of crop. It used to be something you added in after you decided how much wheat you were going to plant and how many other crops you were going to plant. Now it's at the core of the rotation. Now what we need to do is convert that model into wheat. We used to be king in wheat. We still are a significant player in the global wheat market, but now wheat is the third crop farmers usually add to their rotation as they're thinking about what to plant every year. They first do canola to make the money, they do pulses to both make money and add nitrogen to the soil, and then they fit wheat in and around their other crops. That's a real challenge for the Canadian economy and the Canadian agrifood system because that's the market we should be in as well.

● (1605)

The Chair: Thank you.

We'll now move to Mr. Valeriote for five minutes.

Mr. Frank Valeriote (Guelph, Lib.): Thank you to both gentlemen for being here with us today. My first question is to Dr. Fraser.

Dr. Fraser, the committee has heard many times about not enough funding to eliminate what's referred to as the “valley of death” of research—I know you've heard of that—that area between the concept, or the innovation and idea, and the actual product being produced and applied and used.

There is a program called developing innovative agriproducts, which is a component of Growing Forward. This really applies to all four of the strategies of which you speak, as far as I am concerned. My question is, are you familiar with that initiative? Do you think it's enough? And what other types of mechanisms or programs should be introduced to eliminate the “valley of death”?

I've talked to a lot of people over the summer while in Guelph—to Dave Smardon and others—and they talk about flow-through shares and other tax credits to incentivize the turning of ideas into products. Can you talk about those things?

Dr. Evan Fraser: Thank you very much for that.

From my perspective, some of the most important things come from adding value to ecosystem services and to public goods. So I think there's an enormous amount of important fundamental research...and then turning that fundamental research into applications that look specifically at the value of the ecosystem services that farmland produces for us, creating incentives to promote those, and then letting ingenuity and innovation fill that gap to try to create agricultural systems that reward ecosystem services.

Things like carbon credits, I think, are an extremely important part of a way of promoting land management practices that don't result in high levels of carbon dioxide coming off. Similarly, putting values on clean water will be a significant way of incentivizing technologies that reduce the nutrient runoffs.

I'm working with some people in Quebec right now on developing policy tools to look at why farmers would or would not put in drainage tiles and other sorts of technologies like that, which would reduce runoff from fields.

Very quickly, I think the core thing is to look at the values we want out of our agricultural system and engage in research that looks at ways of valuing those things, not only the strict profit margins but also the ecosystem services, and the whole issue of resilience and redundancy within the food system.

We have adopted, over the last 50 years, this very efficient system that seems to have very little resilience within it. I think we need ways of identifying the value of resilience and then promoting that through policy initiatives. It's those sorts of instruments that I would aim for.

Mr. Frank Valeriote: Thank you, Dr. Fraser.

Dr. Phillips, it would be a shame not to ask you this question, given the conference you're at. Some people think I'm full of beans when I talk about coexistence between GM and non-GM. We simply haven't determined whether they're GM beans or non-GM beans. But my question to you is this: is there a possibility of coexistence? We need to be satisfied and know that buffer zones or low-level presence in any number of initiatives, if applied, will allow the coexistence of GM, non-GM, and organic. Can you shed some light on that?

Dr. Peter W.B. Phillips: The short answer is yes.

It's happening now in many markets. Is it universal, and is every product uniquely differentiated for end consumers? No, because there's not enough value in some of those markets to justify the full differentiation.

For virtually every product line where there are GM crops, there are alternate, competing, differentiated attributes. They may be functional attributes that are either GM or non-GM. They may be organic. They may be using a whole variety of other provenance-based elements. Some of it's simply just branded products that somebody thinks have a slightly higher quality control around them.

Yes, we can do it. The challenge, though, is that we have quite diffuse and conflicting international standards, and as long as the governments of the day around the world all want to occupy the centre space and define what are the thresholds for entering or not entering a market, the industry can't step in and do that.

In a few cases, government has done it—drawn the lines—and the markets are being satisfied. In a few places where the government has said, “We're not sure where the line is, but we reserve the right to define the line”, markets have a difficulty stepping in because they'll almost universally be in the wrong space to satisfy regulators down the road. Where the state has said, “We're not going to draw the boundary, that's your job because it's a relationship between the buyer and the seller”—this is not about safety, this is not a safety issue, this is about quality attributes and what people want and are willing to pay for and it's possible to supply—in those cases there have been very effective supply chains that develop that benefit the producers and consumers, both within the supply chain and the other elements in the food chain.

The short answer is yes, it can be done. It's being done pretty much around the world, not just in developed countries, where there are high incomes, but in developing countries as well.

The challenge is that we're spending way more than we should to differentiate those product categories, because we're reinventing the wheel in every market.

If I take you back 50 years, we spent an inordinate amount of our energy as governments trying to harmonize, so that whoever brought a product to market quality assured that product. Now we've renationalized, so we have upwards of 70 or 80 countries who say, “That might be okay, we might accept that it's safe, but we're not quite sure whether it fits with the consumer and producer demands in our market.” The difficulty is that we don't know what those consumer and producer demands are. It's just another group of people making choices. What we've found is that where these supply chains work, it's because buyers and sellers sit down and say, “This is what we want, this is what we'll pay for; this is what the cost will be, and there's value there.”

The numbers coming out of our conference are that about half of the value that could be generated by GM crops has been truncated in the marketplace. We're talking about $5 billion to $10 billion worth of wealth.

● (1610)

The Chair: Thank you.

Mr. Storseth, you have five minutes.

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

Mr. Phillips, I'd just like to follow up on the end of your answer to the parliamentary secretary in regard to the question he asked you on science and innovation.

You mention that the lack of wheat acres planted is a major challenge to the Canadian economy. Obviously one of those reasons for it is profit. Canola has been far more profitable out west over a number of years.

Can you tell us what some of the other challenges have been and why this has become a third rotation in the crop?

Dr. Peter W.B. Phillips: Profit is the bottom line, but what is the source of the differential profit?

The source of the differential profit is that the value added per acre has not kept up in the wheat area with the other competing crops, with pulses and with canolas.

There's a challenge there. That challenge is partly uniquely around what has been done around wheat. This is not just a Canadian problem, this is a global problem, because wheat is a very important part of our nutrition requirements. It meets a large part of our nutrition requirements in the world. It's not just wheat yields that are weak in Canada; they're weak everywhere. There probably needs to be some global effort, and this is where I think Canada, because we are a significant player in this market, probably could and should take some lead in trying to crack some of those upstream problems about how do you make the seed work most efficiently for producing the quantities and qualities that the market needs.

Mr. Brian Storseth: Do you mean science and research into the seed quality and capacity itself?

Dr. Peter W.B. Phillips: You need science and research into the seed itself and science into the adaptation to and adoption in different production systems and ecosystems.

One of the big constraints in many of these product areas is the related science activities, what the statisticians you probably heard from call RSA, which is a major area of investment by the federal government. It's around regulatory science. It's around understanding how one determines what fits or doesn't fit into the market system. That part has been lagging, and that's one reason the diffusion of these new technologies is lagging. We just haven't spent enough time and energy optimizing the use of the existing technologies.

● (1615)

Mr. Brian Storseth: Thank you.

One of the other questions that's come up throughout, and I've actually heard it from a lot of researchers in and around the University of Alberta as well, is about the paperwork for different grant applications and how onerous it can be. They actually have different levels of grants they've told me about. These ones are kind of like high-target funding areas, because there's more probability of being accepted.

Can you talk to this and propose any solutions you might see?

Dr. Peter W.B. Phillips: I think there are two elements.

One is that the shortening of the life cycle of grants has increased the cost. It generally takes upwards of a year to put together the proposal and get it through the international peer review. In some cases, the grants have shrunk in size and have been shortened in duration. You spend a year to get two years' worth of money, then you have a six-month window to report on the money, and during the project you have to report, in many of those granting programs, quarterly.

It's at the point where if you're getting funding from Genome Canada, for example, which is a major funder through the ABC competition, they have actually made it mandatory that you have a full-time, permanent manager for the project.

Now, the tri-council grants and the Ag Canada contracts and grants don't have that, but they still have the same level of requirements. It has gotten to the point that if a scholar like me, who is on five or seven grants, didn't have somebody like that, all I would do is fill in paperwork. I wouldn't do the scholarly work I'm hired to do.

Mr. Brian Storseth: Absolutely.

I have a last question for both of you gentlemen.

I've heard a lot about technology transfer and commercialization and how it must be included in any research project or strategy, because it's one of the weakest links in the innovation project. What do you think the federal government can do better to connect both ends of the value chain to increase the number of research projects that are successfully commercialized?

Mr. Phillips, would you mind starting? Mr. Fraser, you can finish, and then I'm sure the chair will count my time.

Dr. Peter W.B. Phillips: I'll be really quick.

The "valley of death" is not unique in the agrifood world. It's not unique in Canada. It's a universal problem of taking technology into application and use. The agrifood system actually has some very good models that work. The commodity groups, such as the Canola Council of Canada, the Canadian Canola Growers Association, and the pulse growers are very effective as research targeting partners but also as a demand pull into the marketplace. I think there are some really good models there.

I think where we lag, in many cases, is where we try to create a technology that doesn't have a natural adapter and adopter. We try to find one after the fact. I think there's a little bit more partnering that might go on upstream that would lead to a downstream pull of the technology into the market rather than it needing a push.

Dr. Evan Fraser: I'll chip in here, if that's okay, and reflect on my experience of working for much of the last 10 years in the U.K., where there were a number of interdisciplinary programs designed to link industry and academics and a range of stakeholders on agricultural themes. There was the rural economy and land-use program and the ecosystem service and poverty alleviation program, just to name two that represented major cross-departmental initiatives that I think resulted in some significant translation of research ideas into on-the-ground, land-use change programs or new technologies. They were indeed taken up by farmers, because the initial partners in these programs included not only academics and researchers but industry groups and farm groups. So I think there are some good models from the U.K. that do exactly that.

The Chair: Thank you very much.

We'll now move to Mr. Atamanenko for five minutes.

Mr. Alex Atamanenko (British Columbia Southern Interior, NDP): Thank you very much.

Thanks to both of you for being here.

I'll try to split my time between both of you. I hope we can get in a couple of questions.

Dr. Fraser, first to you, I have a document in front of me put out by Oxfam called *Growing a Better Future*, which you may be familiar with. They talk about access to technology. I'll read a paragraph and I'd like to get your comments on it. They talk about the major companies, in this case, Dupont, Monsanto, Syngenta, and Limagrain. It says:

> The research agenda of these companies focuses on technologies geared toward their biggest customers, large industrial farms which can afford the expensive input bundles the companies sell. Such technologies rarely meet the needs of farmers in developing countries, who in any case cannot afford them. Small-scale farmers' technology needs are ignored, despite the fact that they represent the biggest opportunity to increase production and combat hunger. The market is failing, and—with a couple of notable exceptions such as China and Brazil—governments are failing to correct it.

We're talking about science innovation and the fact that we're getting technology to produce more food, and yet we're seeing that maybe it's not getting to the farmers who may need it the most in developing countries.

I'd like you to comment on that.

● (1620)

Dr. Evan Fraser: It's a wonderful question. Thank you for that.

The green revolution technologies, which are ubiquitous and miraculous in the west, were developed with a number of assumptions that were perfectly legitimate. The scientists who developed the hybridized seeds, etc., assumed that farms were large and relatively fertile, that markets functioned, the politics were stable, and that rural populations were relatively sparse. In other words, they assumed the conditions of North America and to a large extent parts of Europe. In those conditions these technologies and these companies' technologies work exceedingly well.

The problem is that those conditions don't exist in major parts of the world. In those parts of the world there's an enormous yield gap between what could be achieved theoretically and what is currently being achieved. The subtle point is that if we are going to develop new technologies to close this yield gap, to boost yields in sub-Saharan Africa, we have to engage in new kinds of partnerships between agricultural experts where the expertise largely resides in the west and the farmers who are going to use those technologies in sub-Saharan Africa and southern Asia.

It requires not just a new approach to developing science but a new approach to how we fund science and how we develop partnerships. In my opinion, it comes back to my point about the desire to link the development agencies and the agricultural agencies to fund and establish some of these initiatives. The Oxfam point needs to be well taken, and it requires us to rethink how we do science.

Mr. Alex Atamanenko: Thank you, Dr. Fraser.

Dr. Phillips, you're now at a conference on coexistence. I just received a document from Dr. Clark, formerly of Guelph University, who shared a document on weed resistance put out by GM Freeze. Apparently it's now a serious problem for farmers growing glyphosate-tolerant Roundup Ready crops. The document targets cotton, soya, and corn. Obviously you've done a lot of work to develop canola. They're saying here that weed resistance to glyphosate is also a problem for the environment because the current solution is to use more and sometimes stronger applications, for example, a mixture of glyphosate and 2,4D and others.

Have you seen the problem in the canola industry, and if this is the case, what solutions are being offered? Obviously using more herbicides probably isn't the answer. Are any other innovative solutions being offered to combat this threat?

Dr. Peter W.B. Phillips: Yes, I, too, have seen the reports, particularly from the United States and some of the Latin American countries, about herbicide resistance in weeds. As we all know, that's not a new problem; it's just compounded by the much larger acres that are going to a single chemical platform.

The good news on the canola side is that we actually have three competing platforms. Producers who discover that they have some weeds that appear to have adopted some tolerance to one of the chemicals, be it Roundup, Liberty, or IMI, can simply, if it's an economic problem—because sometimes it just looks bad, it doesn't actually change the economics of the crop—rotate their chemicals through and kill off whatever has the resistance. So at this point we're in pretty good shape.

The lesson from that is we don't want mono-technologies adopted in any ecosystem. You want competing models. One of the lessons from canola versus those other crops you talked about is that we were able to sustain competition throughout the supply chain, from research right down to adaptation and use.

Federal labs were critical in that. They were the ones making sure that all the companies were competing on a generally competitive basis, as they were doing the research, by doing some of the foundational research that brought them into the crop and made sure that, at the end of the day, we had three technologies that complemented each other rather than caused further harm.

I think that's a really good lesson for the whole industry. We don't want to erect enough barriers to create de facto monopolies here. We do want competition, because competition creates variety and it pushes down prices. I think that's an important lesson from the canola story.

● (1625)

The Chair: Sorry, Alex, you're over time.

Now I'll move to Mr. Payne, and you're the last questioner in this round.

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

My questions will be through you to the witnesses.

Thank you both very much for being on screen today. I understand, obviously, that you can't be here, so it's good to actually get faces to your names.

Dr. Phillips, I was listening to your opening comments, and there were a couple of things that certainly interested me. In particular, you talked about investments and not investing enough in agriculture, the federal research, and particularly you mentioned they are not working together.

I had this picture in my head of something bureaucratic, and I'm wondering if you could flesh out your thoughts around that, and what needs to be done to move those research dollars and people together to make sure we get the right groups working together to get the innovation we need, and to ensure that we can continue to feed the world.

Dr. Peter W.B. Phillips: Let me give a couple of quick examples of that. I think you currently have more than a dozen, but less than two dozen, federal labs through the National Research Council, and you have a similar number of labs through Agriculture Canada, many of which focus very explicitly on certain crops.

The industry and the scientists themselves tell me sometimes it's easier to do partnerships with a private sector company than it is with a lab in the same organization across the street. It's partly the structures of how research outcomes are managed and designed. That's one example.

A second example is that federal programs are increasingly getting more defined about what they'd like to support, particularly the programs under the umbrella of Industry Canada. One of the difficulties there is that they are increasingly carving out the potentially high-return research areas in the agrifood world. So you've got the potential to do it, but you haven't got an ability to put it together.

A third example is that Industry Canada says that even if we do invest in the agrifood world, in many cases Agriculture Canada and NRC are not eligible partners in research grants in the research programs. They can sometimes do parallel things, but you have to sort of do workarounds. So you get into the circumstance where we haven't got enough research. We have really important research being funded by multiple agencies that all come under the umbrella of the Queen of Canada under the federal government, and they can't do anything more than sort of talk across a fence.

Now, somehow getting their parts working together seems to me to be an area that's within the power and the purview of the federal system. If I look back in the past, the successes that the Canadian research community had were when Agriculture Canada, NRC, and other federal institutions worked well together.

We really do work well now in the Canadian context when there's a strong commodity group that can pull people together. So the leadership has left the federal system. It's now residing at the producer level, which isn't bad, but it may be less than fully useful. For example, the pulse growers in Saskatchewan, through the Crop Development Centre and in their partnerships, have been very effective at bringing new varieties to the market. But they've done it almost in spite of the federal funding and management and infrastructure programming.

Mr. LaVar Payne: I understood you to say that we are not being creative in the clusters. From that standpoint, what is there that you see could help us ensure we get that creative talent moving and get that into partnerships in the marketplace?

Dr. Peter W.B. Phillips: When I'm talking about creatives, I'm thinking about individuals, the entrepreneurs, the scientists, and the people who make the institutions and processes work.

I'll give you an example of where I think the federal system may be going slightly in the wrong direction. The recent announcements about changes within the management structure and operating system within the National Research Council world are causing a lot of what I regard as the highest value-added and the most creative scientists to say, "You're suggesting I go from a full-time permanent position to a world where I have to go out and raise my own capital to do my job, and it's all going to be two- to five-year contracts rather than a career path." Many of them are burnishing up their CVs right now and applying to the USDA and the European institutes, the ones that we think are doing better than us. Our people are wanting to leave there because they're saying the direction in which we're going right now will make them less creative. It will make them into the bureaucrats and managers and research design people that we were talking about in response to a previous question.

● (1630)

The Chair: Thank you very much.

Mr. Phillips and Mr. Fraser, thank you very much for joining us today. We very much appreciate your testimony. With that, we'll let you go and turn right to our next witnesses.

We have Anne Fowlie here. I think, Anne, you've been before the committee previously. Welcome back.

We also welcome Mr. McLaughlin.

Mr. McLaughlin, you're the first one on the list, so you have ten minutes or less, please.

Dr. Murray McLaughlin (President and Chief Executive Officer, Sustainable Chemistry Alliance): Thank you for inviting me.

I apologize for not having a formal, written program. I've been travelling for the last couple of weeks. It's always a pleasure to come in and speak. I have this in PowerPoint form.

I've spent over 30 years in the agricultural industry, the first 15 years with the industry in research and development and marketing. Then in Saskatoon I started up Ag-West Biotech in 1989 and helped build a cluster around the ag-biotech sector. I was then Deputy Minister of Agriculture for Saskatchewan. After that, I started Ontario Agri-food Technologies, which is run by Gord Surgeoner today.

I ran a venture capital fund for seven or eight years, where I focused on investing in agricultural technology at the university level. Then I moved a little bit away from agriculture. I went back to Saskatoon and for three years I was the director of business development for the Synchrotron, helping to build the business development side of that research facility.

Two and a half years ago, I came back to Ontario to manage Sustainable Chemistry Alliance and the Bioindustrial Innovation Centre in Sarnia. They are focused on agriculture and the commercialization of the bioindustrial sector.

I wanted to touch on Sustainable Chemistry Alliance and the Bioindustrial Innovation Centre. Sustainable Chemistry Alliance is a facilitator, adviser, and investor in green and sustainable technologies, while the Bioindustrial Innovation Centre is the incubator that provides pilot facility space for green and sustainable technology. We are located in Sarnia. I work closely with the university systems in Ontario, particularly Western.

Our key objective is to establish Sarnia as a model cluster community. We are building off the petroleum expertise in the region and the farming community in Lambton County and the surrounding counties of the region. BIC and SCA are a centre for excellence funded by NSERC and the national centres of excellence.

With respect to the Sustainable Chemistry Alliance, we've set aside some $5 million for investing in startup companies. These are companies that are entering into a kind of valley of death. We're investing in companies and projects on the pilot-to-demonstration scale. We might invest up to a half million dollars in any given project. We ended up with 12 investments. We're just finishing the legal work on the last two or three. We've been able to leverage well over $100 million in other investments. One investment that we recently closed on is BioAmber, which is going to build a full-scale facility in Sarnia. That will create 40 full-time jobs as well as about 150 construction jobs over the next year and a half. The investments we've made have pulled in well over 200 jobs.

We've attracted two companies back to Canada: Ecosynthetix, which uses corn-based materials for paper coatings, selling their product to big pulp and paper mills; and BioAmber, which produces succinic acid. A lot of this research was funded outside Canada by the USDA or the U.S. Department of Energy, and now we have them back with Canada as their headquarters and their first commercial opportunities ahead of them.

The first full-scale biotechnology plant is something that we look at. We look at how to commercialize what we have locally and to help move some of those technologies forward. But how do we attract technologies back into Canada?

The bioindustrial sector is really biomaterials, bio-based chemicals, hybrid chemicals, biomass production and processing, and new crops for alternative use such as switchgrass, miscanthus, and camelina.

● (1635)

I should clarify the term "hybrid chemistry". In Sarnia we have a strong petroleum-based industry, and as we're developing these bio-based industries we see a partnership between the petroleum and the bio-based industries to build new products, which would be bio-based plus petroleum-based to create what we refer to as a hybrid chemical or a hybrid product. An example of that would be Woodbridge foam. About 20% of their foam uses soybean, and the other 80% comes from petroleum. Almost every car seat for vehicles produced in the world today uses a hybrid foam from Woodbridge.

What are the benefits to agriculture of what we do? Biomass is a new source of income for a number of farmers as we move forward in trying to develop this as a commercial opportunity. Some new crops such as triticale, camelina, sorghum, miscanthus, switchgrass, etc., are being researched today and developed into future crops. And then there's consistent or improved value at the farm gate as we have additional products that the farmers will be able to sell, whether it's corn stover or wheat straw, as they manage those opportunities. Hopefully, as we see these develop we'll see more rural jobs coming from that as well.

Based on the questions I have of what should Agriculture and Agri-Food Canada be doing, particularly as far as Growing Forward 2, there are investment programs. I think a lot of the investment programs like the Agri-Opportunities program that we had in Growing Forward 1...we need to look at those and learn from them. They were excellent programs, from my perspective, but probably were not fully utilized in the way they should have been. And maybe by looking at arm's length and with a little bit more flexibility in those programs, it would help make them much more productive in the future. I use our example of taking $5 million and creating well over $100 million in investment as something that was done at arm's length using funding.

Focused research and development with farmer and industry input into the projects.... I think the earlier speakers talked about the length of time, and I think that's one of the things that we.... Time now has become shortened on a lot of funding, and we need to think about that. As I look at Europe, most European countries now have plans out to 2025 or 2030 on their programs, and they don't change those programs. They might tweak them as they move forward, as they learn from this year and going into next year, but they have a plan that's out there for 20 or 30 years on how they want to develop their agricultural community. We tend to operate on a two-year to four-year timeline, so I think we need to think longer term than that.

Bioindustrial programs, I think, are going to be more important going forward, supporting innovative ideas from the agricultural commodity sector. We'll see new biomaterials, new plastics, and new bio-based chemicals coming on stream, and if we don't do it here, it will be done somewhere.

Attraction to Canada is important. We do not invent everything here, so we should be looking to what's out there that we can bring back into Canada at the same time. Examples are BioAmber and the Ecosynthetix projects that we've had. Recently, I was in South Africa, where we've signed an MOU with an organization down there that has investments in start-up companies in the same sector, so there is an opportunity to create collaboration between companies in South Africa and here in North America.

I have a couple of other quick comments. I think the regulatory framework is a very important one, but I will comment that I've been involved in regulatory for 30-plus years and it's been an ongoing topic for that length of time. My simple solution would be that we have one of the best regulatory systems in the world and I think we should just learn how to use it. That's our biggest problem, that we don't use the system properly. We use it as a system that basically says we're here to protect the Canadian public by not allowing new products in the system, rather than looking at it as something that is a strong science-based system that can be used to get products into the market and create economic benefits for the Canadian consumer and Canadian businesses. That would create farm benefits and so on.

There's an opportunity for Canada to take on a leadership role in bio-based chemistry and the biomaterials sector for agriculture and forestry. We can develop alternative crops and new uses of biomass through the development of innovative ideas; establish a sound science-based, user-friendly, and efficient regulatory system; and have a program for attracting to Canada the right agriculture and bioindustrial companies that we are not seeing here today.

● (1640)

Let's be leaders in that sector and consider arm's-length concepts to increase efficiency in some of our programs.

In summary, Growing Forward 2 has an opportunity to look back at Growing Forward 1 and evaluate what worked well and what did not. There are lessons to be learned and concepts to be improved from Growing Forward 1 to 2, whether it is to continue to support those projects that were innovative, change those with limited success, and/or consider arm's length for programs that need to make timely decisions.

Some research-supported initiatives need to be assessed for progress to development and commercialization, and they need to be supported if progress was made from Growing Forward 1. Then a user-friendly regulatory system should be created with economic development as a mandate.

Thank you.

The Chair: Thank you very much.

Ms. Fowlie, 10 minutes or less, please.

Ms. Anne Fowlie (Executive Vice-President, Canadian Horticultural Council) Thank you very much.

[*Translation*]

Good day. It is always a pleasure and a privilege to present our ideas to you.

[*English*]

The Canadian Horticultural Council is the national association that represents packers, producers, and storage intermediaries of over 120 different fresh fruit and vegetable crops. It's certainly a challenge, and it's an exciting one. Membership includes provincial and national horticultural commodity associations, which represent more than 20,000 producers across Canada, as well as allied service organizations, provincial governments, and individual producers.

I have been with the council since 1999. From 1978 until then, I worked in eastern Canada with the potato association before coming to Ottawa. A good portion of that time was spent working with producers and producer cooperatives, doing their sales and marketing.

As I indicated, horticulture is a highly diversified agricultural production, and it's one of Canada's largest agrifood industries. For example, Canadians spend more than $14 billion a year on fruit and vegetable products in retail stores. That's 25% of all retail expenditures.

So how do we grow? How do we maintain that market and grow the product category? Certainly it's going to be through a range of innovation.

With $5 billion in cash receipts, horticulture is also a very large sector of agriculture production. It's a major source of farm cash receipts in British Columbia and Prince Edward Island, and it accounts for more than half of crop receipts in provinces outside of the Prairies.

Of course, as in all sectors, we have been affected by globalization, loss of science capacity, which is of particular interest to you in the work you're currently doing, as well as a number of other items.

My comments will be centred around improving food diversity and security, enhancing agricultural sustainability, and developing new markets. To the extent possible, I'll try to tie that in to innovation.

When we do talk about fruit and vegetable sales and consumption in Canada, it's important to note that three of every four dollars that consumers spend on fruit and vegetables are for imported product. Our exports to the United States are significant, and, as you can well imagine, a favourable regulatory environment is important to us.

Now with regard to that three of every four dollars spent, obviously there are some crops we're not going to ever be in a position to grow, but certainly there are some imported crops we could look to perhaps replace with Canadian product.

As a group, I like to think we've been innovative over time, and certainly we do have some measure of success. The seasonal agricultural worker program is a good example. That began over 40 years ago, through the efforts of the Canadian Horticultural Council and its members. The original memorandum of understanding for that program with the Government of Canada lies with the Canadian Horticultural Council.

We believe our efforts were integral in establishing the AAFC Pest Management Centre, which you've heard a lot about over time, and that contributes to our competitiveness. Certainly the work they do in liaison with the PMRA is helping to bring innovation to the sector, which is much needed.

On food safety, the CanadaGAP program, which we worked so hard on over a number of years, for producers, packers, and storage intermediaries, is the only food safety program in Canada that is benchmarked to the global food safety initiative. That's a tremendous success story for our minister, the department, and the Canadian Food Inspection Agency.

With regard to improving food diversity and security, how do we do that? We do it by Canadians, for Canadians. It's a priority that can only be achieved through dialogue, understanding, collaboration, and a good measure of innovation.

So what do we need? We need adequate funding for research in innovation. The previous speakers have touched on different aspects of that and raised some very good points.

We need to take appropriate actions to develop and implement policies and programs that foster producer profitability. That includes a number of traditional means, as well as some non-traditional means, whether it be through innovation or various types of risk management programs in the very broadest sense. We need to ensure a favourable regulatory environment.

All of these things do begin on the farm, and prosperity at the farm gate will drive prosperity beyond the farm gate. A consistent, safe, and nutritious quality product that's produced in a sustainable and competitive manner, which includes timely access to new and innovative technologies, and a host of risk mitigation tools that are marketed at a reasonable price with full and timely payment, provides long-term benefits. That is a true recipe for innovation and sustainability.

● (1645)

Research and innovation are critically important to maintaining our competitiveness, and certainly the announcement of the Canadian agri-science clusters initiative was received with enthusiasm and a sense of opportunity for horticulture, and indeed all of agriculture, and I believe the program has been very well subscribed.

It certainly had a stated purpose: to encourage key agricultural organizations to mobilize and coordinate a critical mass of scientific and technical capacity within industry, within government, and within academia to create, design, and implement a national program of applied science, tech transfer, and commercialization plans in support of sector-developed strategies.

In 2009, again considering that we have a broad group of crops and very diverse needs, we did look to rationalize our priorities and needs vis-à-vis research and innovation, and those discussions brought us to five theme areas: health and wellness, food safety and quality, production and production systems, environmental performance of the horticultural system, which of course includes pest management, and energy management and efficiency. And certainly the greenhouse sector has been very much a leader in looking at that area, in particular through cost management, but also looking to ensure Canadian production on a 12-month basis. So I think all of those priorities certainly align themselves very much with Government of Canada priorities as well.

So the result has been an agri-science cluster for horticulture, which is enabling industry and researchers to collaborate and work towards the goals of enhanced profitability and competitiveness through the use of scientific and technical resources to support innovation strategies. The cluster has provided industry an opportunity to collectively leverage government funds and available research in a coordinated response to industry priorities.

We have heard some comments around the approval process and application process. I certainly do have to echo that, that when you have a five-year program and it's two years in before you can begin accessing funds, while they're greatly appreciated and are being put to good use, it does make it a little bit difficult, because obviously science is not a short-term undertaking.

Innovation does maintain and enhance our competitiveness, and there are potential benefits and synergies that will be accrued through the cluster by improving coordination.

In the document that was passed around, we do have a summary of the projects that we do have under way through the cluster, which you can review at your leisure. Some of them are certainly of note, I think. One in particular has to do with small fruit and is being focused on blueberries. It is working with the equipment manufacturers to look at better use of technology in the fields. In this project they're going through and looking to apply crop protection management technologies to the field, and through a series of sensors and cameras they're able to discern what is the actual plant and what is the weed and spot-spray accordingly. So it's quite fascinating. And certainly we'd love to make some of this available to you any time, show you some videos. So there are some interesting things going on.

As for challenges and opportunities, a lot of them are production-related. And we cannot discount that some of the very basic research lies in that area. It's not always making the best press or the most glamour, but again, that's where it begins. If there isn't that high-quality, consistently available raw product, then the processors and everybody else along the line aren't going to be able to thrive either.

As regards access to and commercialization of new varieties, again, varieties are a long-term undertaking, but that's what's driving a lot of market growth and innovation.

I did want to touch a little bit on markets, both domestic and international, and the Market Access Secretariat that's doing a lot of work. Minister Ritz attended a session this week where they released their first report. I think it's been a good addition to helping the industry grow and differentiate itself through highlighting different things we do.

I think perhaps I will leave it at that. I do know you have questions, or there are other things I could talk about.

● (1650)

Crop protection technology is critically important. I know you've heard that over time. But, again, research plays a big piece in addressing that. One particular problem that we have that we're working on through the cluster is wireworm. It's a huge problem in the potato industry across Canada, and particularly serious right now in eastern Canada. In Prince Edward Island itself, the Minister of Agriculture is chairing a task force because it's so severe, and the financial losses are pretty significant. It impacts carrots as well, and a lot of fields have been abandoned this year for harvest because of that.

I'll leave it at that.

The Chair: Thank you very much, Ms. Fowlie.

We now move to Ms. Raynault for five minutes.

[*Translation*]

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

My question is for Mr. McLaughlin.

Can you tell us more about the biomass? What can we do to raise the population's awareness of that sector?

[*English*]

Dr. Murray McLaughlin: That's a very good question. It's an area that we're starting to do a little bit on.... I think the biomass has to be properly managed as well, but to build the awareness around it. As we look at that sector from our perspective in Sarnia, with Sarnia being a large agricultural community as well, we have the ability to reach out for straw and corn stover in the region, but also to grow some alternative crops.

We have research plots now at our research park in Sarnia, looking at miscanthus and switchgrass and some other biomass types of crops, to learn more about them and how you can process those as well. I think the opportunity is there. These plots at our site are open to the public to come and have a look at so they can at least see what some of these crops look like, as they read about them or hear about them at the same time. I think from a farming community perspective, the key is we still have to learn what the real value there is. Is there sufficient value to justify growing these crops as alternative crops, and so on?

So there's a lot of work that will have to be done over the next three to four years I think to see a significant growth in that sector in eastern Canada. In western Canada we're looking at camelina, triticale, and a few other crops that could be used for industrial uses as well.

There is a lot of early stage work in the development side of biomass-type crops that need to be developed, and also in the research processes for maximizing the use of those crops.

Hopefully that helps a little bit.

● (1655)

[*Translation*]

Ms. Francine Raynault: That is the case.

You referred earlier to an investment in that sector. Can you tell us about the order of magnitude of that investment?

[*English*]

Dr. Murray McLaughlin: On the biomass side?

[*Translation*]

Ms. Francine Raynault: I am talking about the biomass sector.

[*English*]

Dr. Murray McLaughlin: It depends on which crops you're looking at. In western Canada we've done a significant amount of work with triticale, I'd say, over the last five or eight years. There's probably been $20 million or $30 million in research there. It was a program that was funded through one of the ADF programs, with Growing Forward 2, and then the provinces also financed that one, and some of the camelina and some of the other oilseed crops.

In Ontario, where we've been doing work on biomass, it's probably a little bit more hit and miss. I don't know the exact amount of money that's been put into the research, but it's probably fairly early stage and probably not as much funding as we really need to see how those crops will develop. A lot of interest now is in getting away from using the food-base crops for the biomaterials and biochemicals. So biomass is really the route that most people are swinging to now. That's where we need to see a lot of effort over the next three to five years to see the biomass come into the market from a marketing perspective and to utilize the biomass for producing the new bio-based chemicals that we want to be producing.

There's been some money into that area, but not enough money—probably more in the west than in Ontario, to date. I think we'll see a lot more effort in biomass in the next two or three years.

[*Translation*]

Ms. Francine Raynault: Does the funding only come from the federal government? I believe I understood that the provinces would also provide funding to research.

[*English*]

Dr. Murray McLaughlin: Yes, the provinces are certainly participating. When you start looking at biomass, it draws in the forestry side as well. We aren't talking about that at this meeting, but there's a lot of effort on the forestry side as well, to look at the utilization of biomass in those sectors through FPInnovations and other organizations. We'd definitely have to be working province by province, because geographically and climatically there are differences in what types of crops we'd be able to grow.

The Chair: You have a little time left, if you want it—very briefly.

[*Translation*]

Ms. Francine Raynault: My question is for Ms. Fowlie.

What are the long-term employment perspectives in horticulture or small fruit production? We want to attract a new generation.

Ms. Anne Fowlie: You are talking about the next generation, are you not?

It is a difficult issue, and we are concerned. I think that we may manage it with innovation and some other methods. Profitability and quality of life must also be considered. Life is sometimes difficult for horticultural producers since production costs are very high, especially if we compare them to costs in other productions. I think we will have to find an array of solutions.

There is farming, but there are also very interesting careers in the industry. That includes all of the sciences that are important for crop production. We have to think about what we will do to attract people and interest them in farming and in the industries that support agriculture, the sciences in particular.

[*English*]

The Chair: Time is up. Thank you.

I'll now move to Mr. Gill. Welcome to the agriculture committee.

Mr. Parm Gill (Brampton—Springdale, CPC): Thank you, Mr. Chair.

I'd like to thank the witnesses for their presentations, for being here and providing us with very valuable information.

I have a couple of questions. Maybe I could start with Dr. McLaughlin.

Recently, Azule Fuel Inc. in Sarnia received $1.6 million from the federal government to continue its groundbreaking work on biodiesel. Could you please explain how important funding such as this is to the agricultural sector?

● (1700)

Dr. Murray McLaughlin: Yes. All of these things are very important as we look at how we develop these alternative fuel uses, biodiesel being one of those and Sarnia being one location. But the benefit of Sarnia is because it is a petroleum-based community. I always have to remind people, particularly when I'm south of the border, that the first place oil was discovered in North America was out in Oil City in Petrolia, outside of Sarnia, and not down in Pennsylvania. Pennsylvania was two years after us.

That started a whole realm.... Having that discovery of oil in the 1850s really created Sarnia as a major centre for petroleum. But as we've seen, some of those companies left the community. In the late 1900s, early 2000s, the community said, “How do we maintain what we have but also grow going forward into the next century?” And they decided that green and sustainability were key components of that. Therefore, the bioindustrial, biofuels, became a key part of that, because you've already got the fuel-based businesses there that can start plugging into, as drop-in fuels, the petroleum-based fuels, and so on. So it's a natural fit to have those efforts going on in places such as Sarnia.

Mr. Parm Gill: Thank you.

My next question is for Ms. Fowlie.

Under Growing Forward, $4.8 million was allocated by this government to the horticulture science cluster. Could you please highlight some of the important projects this money has been used to fund?

Ms. Anne Fowlie: Of course, and again, we have a number of them highlighted here.

One of the challenges we had in addressing the science cluster was—of course, you have 120 crops—how you are going to manage that in terms of defining priorities. We already had some experience working on our food safety program in crop groupings where some things made sense. We had done that in food safety based on risks. We had potato root crop, leafy greens, small fruit, and tree fruit somewhat based on risk. We followed that pattern because we did find it to be very successful. Our members were comfortable with it and already accustomed to working together. We went through deliberations on trying to identify priorities within those crop groupings. Then there were priorities that rose to the top, and projects were submitted. Some were approved and some weren't.

In tree fruit, there are two projects currently on the go. One is advanced post-harvest handling and storage technology for Canadian apples. There are a few details here listed with the objectives. That work is nicely under way right now. One of the newer projects that is under way now—and this is a longer-term one that is going to have a good platform and applicability for a whole host of other crops—is identifying genetic markers to enhance apple breeding in Canada. It's really looking to lay a foundation for a large-scale marker-assisted apple breeding program by collecting genomic data from over 1,000 different apple cultivars. What you have is a filing cabinet of material, as you need to quickly react in the market, whether it's pest disease, consumer demand, etc.—a whole host of things—to move perhaps a bit more quickly to changing variety. Those are a couple.

I spoke on the blueberry piece already and what's going on. That one is quite exciting. It's certainly getting a lot of attention. We have a couple of water projects on the go. Those are really related to food safety. Those are very key. There are some gaps in food safety in terms of the science needed to support programs. Certainly, we very much want food safety to remain—let's keep it to the science and nothing else. Water is an area where there are some universal gaps.

Those are exciting pieces.

With regard to the potato, we have some ongoing work—the late blight, and then now the work on wireworm. The potato is a particularly interesting one in regard to expertise in Canada. With wireworm in particular, the only game in town is Agriculture Canada. All that is to say that we need Agriculture Canada facilities and scientists. Certainly, we have a concern that we see that diminishing. We've heard earlier about how the capacity is being lost. How are we attracting and bringing in new scientists? We very much need the department and its expertise.

Those are just a few. I could go on and on, but I won't.

● (1705)

The Chair: Thank you.

Mr. Valeriote, you have five minutes.

Mr. Frank Valeriote: Thank you so much. Thank you both for appearing.

Mr. McLaughlin, I remember meeting you at the bio-lobby at the Château. That was a good event. I am glad you are here.

I am part of a group that's trying to develop, and has actually developed, an innovation centre in Guelph. The reason we've done this is because it seems there is a gap between the minds and the money. We refer to it here, as many have, as the “valley of death”. It is that gap between innovation and ideas, and actually commercializing it and getting it out there. I was reading in a Saskatoon newspaper that we have an agricultural productivity clip of 1.7% growth per year that's needed. We need 1.7% if we are really going to meet the demands of the world as our population grows.

I've talked about incentivizing the industry. I talked to you about incentivizing the industry—flow-through shares and credits. Governments don't want to pick winners and losers. SR and ED, on the research and innovation, allows them to not pick winners and losers, right? I'm wondering if you agree with that idea of flow-through shares and credits. If not, is there anything else you might add to the conversation as an incentive? I know we have the developing innovative agriproducts component of Growing Forward. I'm told it's not enough. We need more. What more do we need?

Dr. Murray McLaughlin: Well, I think a lot of it is....

The flow-through share is one concept that we use a lot. I have been on the board of BIOTECanada, and we've always positioned that as something that would be good to have on the life science side beyond the oil and gas sector. If you look at the success it's created on that side, we feel it could benefit this side as well.

I work closely with the people in Guelph—Gord Surgeoner's on my board, and I'm on the board of Bioenterprise as well—and we talk a lot amongst ourselves on things that are needed, looking at trying to create a venture capital fund for agriculture through Bioenterprise, as you're probably aware, and having some success there. People aren't closing the door in our faces, anyway; they're listening to the story. We'll see what happens.

But that's more of a private sector fund. The other area I see that's needed, or that would be nice, would be some way to provide guaranteed loans. When I look south of the border, when we're having discussions with the bio-based chemistry industry about locating in Canada, a lot of them find that when they're south of the border they can get a $50-million-plus guaranteed loan quite readily from the federal system there, and probably some other state funds. We don't need that size, though, I don't think.

When BioAmber made the decision to locate in Canada, they looked at 100 locations. The other 99 locations were in the U.S. They looked at four or five locations very diligently, but at the end of the day they made the decision to come to Sarnia.

In that decision, we were able to work with them over the last six or eight months to help cobble together some funding of around $35 million between provincial and federal funding. They made the decision to be in Canada simply because it made more sense from a practical standpoint and a financial standpoint for them to be located in a place like Sarnia rather than in the middle of a cornfield in Iowa. They are, at the end of the day, in the chemical business once they produce their bio-based chemical.

Mr. Frank Valeriote: I myself come from an entrepreneurial background. I probably speak for a lot of people, and maybe some around this table, that, if given the opportunity to invest in small companies...because people are perhaps tired of mutual funds and other things, particularly in today's market.

I see, being in Guelph, that if an opportunity came along, if Bioenterprise said, “Here, we're putting a fund together, and people can invest in this thing and have a flow-through share and get some immediate benefit”, people would then take that chance in this industry. I was reading in *The Economist* that this is a trait we've inherited from the British, apparently, unlike the Americans.

Do you see that? Do you see an opportunity for private investment? We really have to incentivize private investment and not always rely on the government to come up with incentives.

● (1710)

Dr. Murray McLaughlin: I agree, and I think the private investment will be there. If you look at somebody like BioAmber, their facility is $80 million to $90 million. The rest of that funding will come from them. The money they have from the government is loans. It's not grant money.

The problem is that most of these start-up companies, when you look at their bond ratings, are rated triple-B or less. Well, banks will only touch you if you're double-B or higher. That's why there needs to be some methodology to help them get through that first construction. Once they have that, then the banks will probably be there, because that will probably move them to a double-B and then they'll get the funding; it's just getting that first facility.

Mr. Frank Valeriote: Right.

Do I have more time, Mr. Chair?

The Chair: You do not. Sorry.

We'll now move to Mr. Lobb for five minutes.

Mr. Ben Lobb (Huron—Bruce, CPC): Thanks.

Well, after the markets today, Mr. Valeriote wishes he had more money in the markets: they were up almost 300 points today.

My first question is for Ms. Fowlie. One of the counties I represent is Huron County. At one time, not too far from where I live, there were apple orchards lined up on each side of the county road. It was called “orchard line”.

I'm wondering, in areas where horticultural growers are facing pressure—they're facing pressure on the price of land and the alternative crops to grow there, which are much more straightforward to harvest and plant—how is your group continuing to push the envelope from innovation to kind of hedge off those pressures? Or is what I've described just something I've seen in my own area? It seems to me that this is something a horticultural grower has to see.

What are your thoughts on that?

Ms. Anne Fowlie: Thank you very much.

Certainly it is something that's a huge concern, I think particularly to our sector, but it's not unique to horticulture. In some respects it's evolution, but how do we fend that off? Regardless of whatever happens in evolution, everybody is still going to have to eat. Once some of that land is gone into other things, it's not ever going to be brought back into agriculture production.

I think it's a number of things. Part of it is coming through diversification that we're seeing in what some producers are doing in terms of looking at other things: mixing up crops, other enterprises, looking at innovation, the different ways of producing crops. In 2008, 45% of processed foods launched contained health and nutrition messaging. It was 31% in 2002, so in 2011 going into 2012, I would expect that it's increased again.

What are the opportunities for horticulture in particular in the area of health? I think we have some opportunities, whether it's through processed items or medicinals, or just in fresh consumption that perhaps some other sectors don't have. Technology to help ease how the crops are produced...I don't want to say it's burdensome. It can be complicated. As I mentioned earlier, the very high cost of production...that definitely is unique to horticulture. How do we make for a better lifestyle and a better level of profitability on a consistent basis? Some of those things....

We've lost so much of our processing capacity in this country. That's not insignificant and that's not been something very positive for the industry. There's a whole host of reasons as to why that has happened, and that's a whole debate for another time and place.

Mr. Ben Lobb: Right.

I'm going to ask Mr. McLaughlin a question. If I have a chance, I'd like to ask you another one.

Mr. McLaughlin, you mentioned in one of your statements about the move away from planting food crops for biomass or biodiesel. I'm just wondering, because obviously there are still a lot of food crops that go into both, is that a philosophical issue that should be looked at within Growing Forward 2, with science and innovation supporting projects that look at using food crops for biodiesel or biomass? Or should we be looking at alternative crops like you mentioned, and switchgrass is a great example, to do that? And also philosophically about the amount of acreage allocated to biomass and biofuel....

● (1715)

Dr. Murray McLaughlin: Yes, if I look at the biomass, there are two things. One is utilizing biomass from existing crops. In corn, you can start switching to the stover rather than the grain for producing biofuels. There's still some research that's going on there, but eventually we will see that shift to using that component of the crop that isn't used today. It's the same with wheat straw or other straws that are out there. They could be utilized as cellulosic material for producing biochemicals or biofuels rather than using the grains. It's probably another three to five years, but we're gradually going to see that shift into more and more of those cellulosic materials being used for producing these products.

The main reason is to move away from food crops. It's not philosophical any more. It's there, it's going to happen. There's a lot of research going on around the world. The U.S. is really pushing hard in this sector as well right now. Again, we have to watch what's being developed, not just in Canada but elsewhere, that we can draw back in here to help us create those commercialization opportunities.

I'd make one quick comment on the horticultural side as well. I have a farm and I grow a few blueberries. Another factor to keep in mind is when you put in a high-bush blueberry crop, it takes five years to get the maximum production. There's a long time period when the farmer's got to put in a lot of money and a lot of capital before he starts seeing maximum return on his effort. Maybe there needs to be a way to think about how you help these kinds of crops on the front end that take some time. Just a side thought.

Mr. Ben Lobb: Within the field you have been in, obviously there have been a lot of dynamic things that have been created through your years of work, with intellectual property and the things that come along with it. What has your experience been with those, and also with defending those in the United States?

Dr. Murray McLaughlin: Patents and trademarks are critical. Obviously any companies that are going to go commercial on our side have those and look after them. Defending them in the U.S. is not a problem. Most of them file in the U.S. first anyway, simply because the process is quicker if you get your filing done there and then file in Canada and wherever else in the world you want protection. Usually the U.S. is the first place they will file, though.

Mr. Ben Lobb: Crops that were more prevalent maybe 50 or 60 years ago—and sugar beets would be a good example.... I recently heard that in Ontario now they are looking at planting thousands of acres of sugar beets down there in some of the more marginal tobacco lands. I don't know if that's something you've heard about or not.

With regard to that, I'm just wondering, since producers may be looking at alternative crops that were used years ago, how that knowledge is transferred and where that research starts again on the potential for those crops.

Dr. Murray McLaughlin: The knowledge will be there in some cases. I happen to live down near Tillsonburg, so I live in that part of the country, but probably more sweet potatoes are grown. There are a fair number of sugar beets grown in Lambton County. They're shipped across the border right now for producing sugar at the refinery in Michigan. Unfortunately, we lost all our refineries for sugar beets a number of years ago, but there may be some opportunities for sugar beets on the bio-industrial side, because once you take the sugar out of the beets, there is still a chunk of biomass left. Nobody has really looked that much at that from a Canadian perspective yet.

I don't know how well they would do down in that sandy soil in our part of Ontario. It probably depends on the year. That's not an area that sugar beets were grown in before. They were always grown in the loam and heavy clay soils, down near Chatham and up in Lambton County.

The Chair: Thank you very much.

We'll now move to Mr. Atamanenko for the last question.

Mr. Alex Atamanenko: Thanks to both of you for being here.

Ms. Fowlie, you mentioned that $3 out of every $4 spent on produce by consumers in Canada is spent on imported produce. What would you think would be a realistic ratio for us, and what is the main way we could achieve that?

● (1720)

Ms. Anne Fowlie: Even if we set a target of 50-50, that would be a significant boost.

Some of it is going to come from changing varieties, to keep up with varieties of crops we can grow that other countries are growing. It's about taste. It has to be the right price. It has to be there every day. It has to be perfect, and a whole host of other things, so some of it is going to have to be variety development.

We mentioned blueberries and the length of time to come to market. Our blueberry industry has grown tremendously. We export a lot of them. But if we look at something like strawberries, we're used to Canadian-grown strawberries. You get them early in the summer. You have them for Canada Day weekend and a little bit longer. There is a lot of work being done looking at different varieties that will keep Canadian strawberries in the market longer.

[*Translation*]

I am thinking of the Demers company. Indeed, some of the strawberries it produces mature later.

[*English*]

We have Canadian strawberries available in our market well into September and into parts of October, but you're looking at an investment of $50,000 an acre to do that before you put a plant in the field.

Mr. Alex Atamanenko: I've asked this question before at this meeting. I was at a Federation of Agriculture banquet last year, and I sat beside one of your directors. I forget his name, but he's a gentleman who is a big broccoli producer in Ontario.

Ms. Anne Fowlie: Was it Ken Forth?

Mr. Alex Atamanenko: It probably was. He mentioned that he makes money when there is something wrong with the crops in the United States, when there is a drought. I got the impression he was the biggest broccoli producer in Canada, and yet he's fighting to survive. Obviously if he's a big producer, he probably has access to technology, so what do we do? The question I am leading to obviously is about the open border for produce. Is there something we can do to maintain our status as a trading nation?

I've talked with the B.C. Fruit Growers' Association about the problem apple growers have in Canada with subsidized applies being dumped in our country. Should we be pushing for some kind of a floor price? Have you folks talked about that at the national level? Obviously we can innovate and innovate, but ultimately if somebody's going to dump some produce here at less than your cost of production, it's hard to survive. So either we just forget about trying to grow and forget about trying to get that 50% ratio, or we try to do something.

I'm wondering if you've thought about that and whether you have any suggestions in that area.

Ms. Anne Fowlie: We've talked about a number of things. Certainly within horticulture there are not the marketing regimes, as I would call them, that there are in some other sectors. Part of what we face is a gross lack of market intelligence sometimes, market data, even in some instances not really knowing what the true market value is of crop—all it takes is one producer, who doesn't know, to undersell. That can bring prices down. There are some things that can be done there.

We're looking also at what we can do around a promotion and research agency. Again it will take some work by some of the larger commodities first, to lead the way. That won't necessarily help with the border, but it will help reinvest money into the industry for research and innovation.

I think more and more—particularly because the Canadian and U. S. markets are so seamless, so integrated—we're seeing some of the larger commodities really working more closely together nationally and across border to look at how they can change that or change the shift a little to look at supply and demand to maybe help with that.

Mr. Alex Atamanenko: I was told once in a conversation with some fruit growers that often what the Americans will do in their peak apple season is load their semis down there with apples, and the driver doesn't even know where he's going until he gets that direction to go to some supermarket or some store in Canada and dump that produce at that price.

In innovation we're doing the very best we can. Of course we need more money from government and research, and we need everybody to chip in, but the bottom line is that if we don't do something to somehow protect you folks so that the farmers in my area don't have to.... We visited them. We visited orchardists last year, and they're hurting. A lot of them are either ploughing their land up if they can't put in the small trees, and they're trying to go into grapes, or they're trying to sell their land. Often they can't sell, because it's an agricultural land reserve. As a food-producing nation, it doesn't do a lot for our own ability to control our food supply and our food sovereignty. And I'm just—

● (1725)

Ms. Anne Fowlie: There's no question there's some work that needs to be done in the area of market intelligence and dynamics and having perhaps a better decorum in the market, if you will, and ensuring that a greater return of that food dollar does go back to the farm gate.

The Chair: Thank you very much.

Mr. Payne, there is time for one quick question. We have some minor housekeeping.

Mr. LaVar Payne: Thank you, Chair.

I just have a comment. We grow both sugar beets and potatoes in our riding. I was interested in the research that's going on in terms of the potato wireworm. I'm not aware of that issue or problem in our riding which is southeast Alberta, the Taber-Lethbridge area.

Ms. Anne Fowlie: You folks are fortunate there. It has been more of a problem in British Columbia and in areas of the east, and hopefully it won't become a problem for you.

Mr. LaVar Payne: Thank you.

The Chair: Thank you very much for being brief.

Ms. Anne Fowlie: Mr. Chair, may I just have one moment to extend an invitation?

The Chair: Certainly.

Ms. Anne Fowlie: It's to you for our fall harvest event. You were very gracious in the success of co-hosting our first event of that type in March. We're having a fall harvest event on November 22, and certainly you would have an opportunity at that time to speak with a number of producers of different commodities from different parts of the country. There will also be folks from the retail sector and wholesale sector because we are collaborating with the Canadian Produce Marketing Association to host that event.

The Chair: Okay, and I will say the one in March was a tremendous event.

Ms. Anne Fowlie: We'll have potato martinis again. For those of you who have not had them, I hope I've piqued your curiosity.

The Chair: Thank you very much, Anne.

To Mr. McLaughlin, thank you for being here. We appreciate it very much.

For the committee, the sheet I talked about earlier and handed out has a list of all the witnesses who have appeared and a list of the witnesses who are scheduled to appear up until November 3. I will note that the department will be here on November 15. Thanks to Mr. Lemieux for helping to arrange that.

My question is whether we want to continue the innovation part of our study or after the department is here on November 15 whether you would like to start setting up witnesses for one of the other topics, whether it's business risk management, or whatever. I just need some direction.

Mr. Alex Atamanenko: These witnesses who are here, right up until number 28, are all here for innovation?

The Chair: Yes.

Mr. Alex Atamanenko: You're not saying that we ask them to do something else—they're going to be here for sure?

The Chair: Oh no, they're here for innovation.

Mr. Alex Atamanenko: Okay.

My suggestion would be that we move on after this.

The Chair: Okay.

Any other comments on that?

Frank.

Mr. Frank Valeriote: I'm thinking move on.

The Chair: Move on to another topic, whether it be business risk management or whatever your wishes are. Are we in agreement?

Frank.

Mr. Frank Valeriote: No, we thought we were going to get the Wheat Board issue here, and it's not coming here.

Growing Forward 2 is critical.

The Chair: Absolutely.

Mr. Frank Valeriote: Innovation, as far as I'm concerned, is critical, probably more critical than almost anything else we're looking at. So I think we need to complete the rest.

The Chair: So you're in favour of continuing?

I'm just trying to get consensus here.

Mr. Frank Valeriote: Is that what you're saying?

Mr. Alex Atamanenko: Yes, after we complete the list.

Mr. Frank Valeriote: Yes. All right, okay.

Sorry.

The Chair: What was that?

Mr. Alex Atamanenko: Frank wasn't sure.

I said after we complete the list then we—

Mr. Frank Valeriote: I didn't hear the "after you complete the list".

The Chair: Oh, yes. We will complete this list, have the department on the 15th, and if it's okay with everybody we could move on to something else on the 17th. That's what we're suggesting.

Any opposition to that?

● (1730)

Mr. Pierre Lemieux: No.

We should decide what we're going to move on to so we can get witnesses and so forth.

The Chair: Okay.

We are pretty well out of time. I know I've got an event I have to go to right away.

Mr. Pierre Lemieux: We can discuss it at the next meeting.

The Chair: Or you can e-mail me tomorrow, or Monday at the latest, or e-mail the clerk directly just to give some ideas. And if we can get a consensus on what category we will go forward on, then I need witnesses from everybody ASAP so David can get to work on them.

Okay?

Mr. Pierre Lemieux: Chair, the analyst had put together a work plan. I don't know if everyone still has this.

Mr. Valeriote, do you still have that work plan from the analyst?

The Chair: What is the next one on that list, Pierre?

Mr. Pierre Lemieux: There's business risk management, science and innovation, competitive enterprises, marketing and trade, and meeting consumer demand.

I thought maybe the analyst or the clerk could fire it around again so that everyone's got a copy of this. We can pick from that and discuss it briefly at our next meeting.

The Chair: Frédéric, does it matter to you, in any way, which one we go with next?

It makes no difference to you? Is business risk management okay, or do you want something else?

It doesn't matter to me.

Mr. Pierre Lemieux: We can come back to you on that.

Some hon. members: Agreed.

The Chair: Okay, you'll get back to me on that. Very good. Thank you.

Have a good weekend.

The meeting is adjourned.

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