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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.

We are continuing our study on Growing Forward 2, particularly in regard to innovation.

But first, I was wondering if Pierre could answer the following for us. The clerk has been trying to get the department here. We have them pencilled in for November 3. We've had three or four different dates, and they've been unable to come so far. It's getting very difficult to book witnesses, and what have you, and I just wondered if you could comment on that.

Mr. Pierre Lemieux (Glengarry—Prescott—Russell, CPC): I can't. My last discussions confirmed that the department would be available, but I can't say on what date. I left that to the clerk to work out with the department. If there's been a conflict, I imagine that the debate on the Wheat Board has probably been occupying a good portion of their time.

You're saying November 3. I'll have a look at that and find out if it will work or not.

The Chair: We only need them for a couple of hours out of their day.

Mr. Pierre Lemieux: I understand.

The Chair: With that, we'll move to our first slate of witnesses. From the University of Guelph, we have Mr. Peter Pauls. And by video conference from Saskatoon, we have Mr. Franck Groeneweg, director at the Saskatchewan Canola Development Commission. Welcome to both of you.

Mr. Pauls, we'll turn it over to you.

Dr. K. Peter Pauls (Professor and Chair, Department of Plant Agriculture, University of Guelph): Thank you.

I'd like to thank the committee for the opportunity to speak to you about the issues raised by the Growing Forward 2 discussion paper, from my position as chair of the plant agriculture department at the University of Guelph.

I'll begin by giving a thumbnail sketch of the department. We're one of six departments in the Ontario Agricultural College at the University of Guelph. Our department consists of 33 faculty, 40 permanent staff, 60 contract staff, and 110 graduate students. We have over 20 scientists from various organizations, including Agriculture Canada, associated with us as adjunct faculty. We have a staff member from the Ontario Ministry of Agriculture, Food and Rural Affairs or OMAFRA, co-located in our building. In addition, we have an Agriculture Canada scientist located in the crop science building. We believe this is a model for closer cooperation with Agriculture Canada in the future.

We teach students in the Bachelor of Science in Agriculture and the Bachelor of Science in Plant Biology and also students pursuing a two-year diploma in turfgrass management. Areas of emphasis for our graduate program are plant physiology, genetics, breeding, crop production, management, and soon, biotechnology. Our research interests are grouped around plant breeding, crop production, molecular and cellular biology as they relate to agricultural trades and, most recently, bioproducts. The crops we run breeding programs for include soybeans, corn, cereals, forage legumes, dry beans, asparagus, native flowers, strawberries, nut crops, and food crops.

The department is an active participant in research contracts, particularly with OMAFRA. Of the university envelope of about $120 million a year, the department brings in about $12 million. This research is conducted in more than 10 field stations with multiple soil types and heat zones.

Our laboratories are equipped for studies in plant physiology, molecular biology, biochemistry, genomics, bioinformatics, pathology, and biomaterials, and we have a range of specialized facilities, including large growth chambers, extensive greenhouses, a transgenic greenhouse, a post-harvest facility, the Turfgrass Institute, an organic garden, and the Bioproducts Discovery and Development Centre. Our strategic plan indicates that our core purpose is to improve life through innovative science and teaching.

I'd like to frame some of my specific comments on the Growing Forward document with a general perspective on agriculture first. In southern Ontario, we're very aware of the tension between urban expectations for our food supply and the realities of farming competing globally on the basis of price and quality. Everything that a farmer does is under close scrutiny. Urbanites have rediscovered the food on their plates but have little appreciation for the science, technology, regulatory framework, and infrastructure involved in getting food to local markets, and to restaurants, supermarkets, food processors, and international markets. The knowledge gap is building mistrust and leading to a real possibility that new technologies will not be employed in the future to meet the impending global food production challenges.

The impression that agriculture is a niche business of a minority amounting to the 2% of the population that is involved in primary agriculture is a fallacy. In fact, agriculture has been characterized as the backbone of a strong and healthy Canada by the president and CEO of Farm Credit Canada, Greg Stewart. He indicated that it's one of the country's top five industries, contributing $130 billion to our economy each year and providing one in eight jobs.

The fallacy that agriculture is an activity that engages only a small minority of Canadians hurts agricultural business in a number of ways. It inhibits serious agricultural policy discourse at the highest levels. It inhibits investment in agricultural research and business, a concern noted in the Growing Forward document. It limits the career choices of our young people and leads to shortages in skilled labour and lost opportunities for Canadian-educated workers.

The introduction to the Growing Forward discussion paper comments that many issues that affect the future of agriculture, agrifood, and the agri-based products industry fall outside the mandate of agricultural departments.

● (1535)

I would argue that the agriculture enterprise in Canada is increasingly in the position of being a solution provider for issues in health, environment, economic innovation, and employment. The agriculture sector needs to highlight the opportunities that investments in agriculture foster to prevent human disease, reduce health costs, remediate degraded environments, create novel green products from agricultural biomass, open new markets for Canadian agricultural products, and employ people in fulfilling, high-quality jobs.

Thus, those of us who are involved in agriculture need to engage the people and resources that exist in other sectors into collaborative efforts to realize these opportunities. To engage the public in a debate on the future of agriculture in Canadian life in its broadest sense, I would endorse the call of the Growing Forward 2 discussion document for the development of a national food policy.

I have some specific comments about our experiences with the Growing Forward programs. We have had very good and not so good experiences with the current programs. The Canadian agricultural adaptation program, which is delivered through commodity organizations, has been used by our researchers for a wide variety of purposes. The Canadian agrifood clusters initiative provides funding for research in several sectors, including pulses, canola, ornamentals, soybeans, and cereals. The developing innovative agri-products program provides funding for bean research with an Agriculture Canada scientist.

In contrast, however, our experience with the agricultural bioproducts innovation program, or ABIP, was a major disappointment. After being informed that our consortium with Peter Jones from Winnipeg was granted $9.7 million for a project entitled “nutraceuticals emerging from ag technologies network”, we were never given the funding. This was an unprecedented breach of trust and left several researchers scrambling to honour commitments to graduate and post-doctoral students without any funding.

I'd also like to make some specific comments about the document. Under “competitiveness”, table 1 indicates that there are periodic shortages of skilled labour. We believe there are chronic labour shortages in the agriculture industry at all levels, and that many jobs in applied science and commerce or administration in the sector are filled by individuals without agricultural backgrounds, because of a lack of knowledge about career opportunities in agriculture by a largely urban population.

Under innovation in general, I want to affirm the messages of the document about the importance of innovation for improving the competitiveness of the sector and achieving sustainability. The need for public-private sector collaboration and sustained funding of research and development is important. In some cases, for small crops, the public sector needs to be enabled to carry out the full chain of innovation, from inputs to marketing. At the University of Guelph, we've estimated that the annual farm gate value of various field vegetable and fruit crop varieties developed by our breeding programs in our plant agriculture department exceeds $50 million a year.

Under knowledge creation, I would emphasize the importance of building long-term relationships between industry, commodity groups, and public research organizations. These relationships build understanding of the value of short- and long-term research objectives. Even small sustained investments by commodity groups and industry can be leveraged into large research initiatives when a consortium approach is used. I can give my experience in working with bean growers as a specific example, if the committee is interested later.

Under infrastructure, the section that deals with regulation indicates that the ideal is a regulatory system that is timely, appropriate to risk, market responsive, and adaptable to innovation. I'd endorse these goals and add a concern that the current regulations on the introduction of transgenic organisms into the market are so onerous, they prevent the participation of a public institution like a university in the process. I believe the system loses when the public scientists don't have first-hand, experiential knowledge of the regulatory processes.

Finally, the area I am not concerned about is plant breeders' rights and IP, that is, protecting innovations in applied biological science. Investors in agriculture innovation need the same tools that other high technology sectors have to see returns. This is the basis for developing and maintaining a seeds industry in Canada.

● (1540)

With that, thank you for your patience.

The Chair: Thank you for being right on time.

Mr. Groeneweg, you have 10 minutes or less, please.

Mr. Franck Groeneweg (Director, Saskatchewan Canola Development Commission): Thank you very much for the opportunity to present to you today.

My name is Franck Groeneweg. I'm a canola producer who farms near Regina. I have about 2,500 acres of canola on a 9,000-acre farm.

I chaired the research committee of SaskCanola. Here with me is Pat Flaten, our research manager.

SaskCanola was started about 20 years ago and has an annual budget of about $2 million, supported by canola farmers in Saskatchewan through a levy taken at the point of sale. We have an eight-member board and seven staff working. Our strategy is to support agronomy research, germplasm research, and canola utilization research. From the start we've worked in close collaboration with public research and hope to continue and improve on this to enhance public research.

We've had lots of different successes in the past 20 years, which have contributed to the success of the canola crop in Saskatchewan. Biodiesel is one of them. At the early stage we had research, and we have licensed agreements and royalties paid right back to AAFC and SaskCanola for technology. That's a project that's actually starting to pay back small amounts, and we can reinvest these royalties back into research.

We've been in early stage research supporting protein separation extraction technologies. And right now we have two facilities currently that operate in Saskatchewan.

Over the 20 years it's been very important to have improved agronomics for growing the crop of canola and reducing the risk to our canola producers, of which I'm a recipient.

SaskCanola has participated in the canola/flax science cluster with Growing Forward. It's a cooperative project managed by the Canola Council of Canada. There are selected projects that amount to about $20 million, of which $14.5 million is from the federal government and $5.7 million from the canola industry. That includes industry players like Richardson, Viterra, Louis Dreyfus, Cargill; and on the producers' side, the Alberta Canola Producers, SaskCanola, Manitoba Canola Growers Association, and others from the industry, including BASF, Bayer CropSciences, Dow AgroSciences. These companies are all working on projects through the canola/flax cluster, which is a great way to do this because there is actually partnership within the whole industry through the Canola Council.

The industry funds portions of projects through SaskCanola and Manitoba as well.

Some of the areas of investigation right now are oil nutrition, meal nutrition, and crop production within our canola crop.

Right now we are also partners in four research projects under DIAP, the developing innovation agri-products program, through Growing Forward. We've also participated in the Canadian agriculture adaptation program, the CAAP program, to continue commercialization of research on canola protein extraction methodology. Here we're at the pilot plant project stage.

Our organization is very committed to partnerships with federal government programs to enhance our ability to compete globally with other oilseed crops. It's so important for us as farmers to have the tools to be able to grow crops and reduce our risk and to compete with the rest of the world on the world scene.

Overall we've had a great experience with Growing Forward. We definitely appreciate the partnership that we've had and we encourage you to continue through the cluster and through DIAP funding with the next generation of Growing Forward.

● (1545)

Canola has an impact of about $15 billion on the Canadian economy and it wouldn't have happened without strong research and that partnership.

The Chair: Mr. Groeneweg, I'm sorry to interrupt you. We have to make some adjustments to get the audio to pick up your voice by video conference.

● (1550)

Mr. Franck Groeneweg: Sure, you bet.

I was saying that it's a $15 billion program so it has a $15 billion impact on the economy. With the right tools we've been able to start basically from scratch in the 1970s with canola. As with any crop, canola is grown in rotation....

Our organization deals with canola, but we definitely need to be working with other groups out there. Other groups don't have the background and the financial strength that we have.

The paperwork for DIAP and the Growing Forward program is sometimes very cumbersome. We would encourage the committee to look into more expedient methods to lessen some of the paper requirements so that some of the more fragile or less secure organizations could participate and have the type of success SaskCanola has had over the years.

We also encourage, right alongside DIAP, shorter programs that would help some of the researchers find their way. Sometimes a five-year program ends up taking a lot of resources, and some of the researchers find themselves on the outside looking in. It would be good to have alongside it maybe some shorter-term, same term, and long-term types of funding projects.

We can see at times that tightened budgets are happening, and it seems as if this comes from the top down. We would like to know what kinds of cuts we are looking at and, accordingly, maybe could help you figure out what projects are the most valuable to our industry. Being more at the ground level, we can assess some of the more valuable projects, the ones that have a bigger bang for the buck and that should keep going. If we are in an era of tighter budgets, we definitely need to be consulted.

One big thing is that we need to be able to collaborate with other crops in the sector so that problems can be dealt with better. Sometimes there are common interests, such as regarding an insect that's going to be a problem in canola and might be a problem for other crops. It would be good to have the funding to encourage work across parts of the agriculture industry.

To sum it up, we appreciate the Growing Forward program, and we definitely want to continue. We are very appreciative of the fact that we can participate in this consultation. To us, it means that you guys are connected and want to make sure that you're providing the right programs.

We have several recommendations. First, reduce the administrative burden where possible. Second, manage payments to organizations in a timely manner, which sometimes can be a little bit of a struggle. Third, develop programs for emerging issues that are not restricted to a five-year timeline. Fourth, allow the industry to determine priorities and the allocation of funds to those priorities. Finally, provide a method of funding collaborative projects within the agriculture crop sector to encourage crop groups to work together.

With that, thanks again. If there are any questions, we're right here. I can answer some questions in French, if my French is not too rusty.

The Chair: Okay.

We will turn now to questioning by committee members.

It's your choice of language, Mr. Groeneweg.

We'll now move to Ms. Raynault, for five minutes.

[*Translation*]

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

I am one of those people who really need to understand what is being said.

I would like to ask a question. Since I missed a big part of your presentation, I am going to refer to the notes and the document that we have received.

You are saying that you would like to be consulted when cuts need to be made. In your opinion, it might be appropriate for the industry to determine how those cuts will be made. Could you tell us more about it, please?

● (1555)

[*English*]

Mr. Franck Groeneweg: I don't know if I was clear on that point.

If we are looking at tighter budgets within the world economic crisis, I would say that Canada is in fairly good shape. But we need to be fiscally responsible. And if we're looking at a cut in programs and it comes from the top down—let's say the envelope needs to be cut by 10% or 20%—we would appreciate being informed of the reduction. That way we could rate the projects according to value, so that the more valuable projects, rather than those at the top of the list, could be considered for cutting.

[*Translation*]

Ms. Francine Raynault: Thank you.

My next question is for Mr. Pauls.

You say you have an annual budget of $120 million. How much more money would be needed for long-term research?

[*English*]

Dr. K. Peter Pauls: That is the research that comes into the university. It's driven by individual faculty members who make applications dealing with particular projects, each of which would essentially have a budget of its own.

It's a difficult question to ask. We apply for a lot more than we succeed in bringing to the university. So I would say that each of those applications is a hope for doing new things. I can't really say the percentage of successful projects. At the NSERC discovery grant program, I think the success rate is somewhere just over 50%, which means that quite a number of people are turned down.

It really depends on the program. I'd find it hard to give a number back at this point. I'm sorry.

[*Translation*]

Ms. Francine Raynault: I would like to know more about the plant breeding program. You mentioned asparagus. What does your program specifically include for breeding plants, such as asparagus, for example?

[*English*]

Dr. K. Peter Pauls: In each crop you would have different objectives, but a major objective in any breeding program is yield, that is, increasing the productivity from a certain area with certain inputs. That's the minimum requirement and it's usually coupled with requirements for quality, whether they have to do with disease on the produce or the addition of compounds like vitamins and antioxidants. Increasingly, we're being asked to look at the way it affects us in our nutrition and our health.

The Chair: We'll now move to Mr. Storseth.

Mr. Brian Storseth (Westlock—St. Paul, CPC): Thank you, Mr. Chair, and my thanks to the witnesses for presenting to us today on this important topic.

Mr. Groeneweg, I noticed some of the comments you made about maintaining or improving long-term relationships. One of the things that is often talked about here at the committee is innovation. It's been continually identified as one of the keys to making Canada's agriculture and agrifood sector more competitive.

What are the main areas of innovation that Canadian agriculture needs to invest in for the future? Do you have examples of innovative farming practices and new products?

I will follow up on that with you, Mr. Pauls, as well.

● (1600)

Mr. Franck Groeneweg: Agriculture Canada needs to be involved with projects that are very long shots. When we look at a very long perspective, and as we tighten the timelines, it needs to be more related to producers.

Genetically modified crops are not getting a very good rap in the public these days, but the reality is that we have a growing world that's very hungry. I personally find that people are becoming more in tune with what it represents and with the opportunities out there to make the crops offer health benefits. We have to be very careful not to turn back on that side of research. Along with the producer groups, we need to work together to make sure the public is educated on the opportunities for the advantages that type of technology can bring.

It would be one area that I would strongly suggest we should keep working on.

Mr. Brian Storseth: Mr. Pauls, do you have a suggestion?

Dr. K. Peter Pauls: It's somewhat tied to the question I answered before. For the most part, Canadian agriculture is based on being productive and competing at a world scale on both productivity and quality. Again, that's a minimum; it's always required for the agriculture that we practice.

I think commodity groups are looking for traits that distinguish their particular commodities to bring them to the attention of the public, particularly when they relate to health claims. We need science to back up those types of health claims.

We're increasingly looking at agricultural products for non-food uses. For example, we have a number of projects where plant fibres are incorporated into plastics that might be used in car parts. I'm involved in an bio-auto project.

This of course raises some societal questions. I think science-based research proposals are increasingly required to cast a broader net and include social scientists in the grant applications to look at the societal implications when crops are diverted to non-food uses. What are the long-term implications on the health of the field? How does it affect the distribution of food in our society? Again, I'm involved in a research project where we have economists as part of the research proposal.

Mr. Brian Storseth: Yes, that's excellent.

I have one question, Mr. Groeneweg. Could you give the committee a written submission? You commented on paperwork and the overwhelming paperwork that can sometimes be attributed to some of these applications. I don't expect you to give an answer off the top of your head, but it would be helpful to the committee if you gave some suggestions in a written submission on things that we could deal with.

Do I have time for one short question, Mr. Chair?

The Chair: It must be very short.

Mr. Brian Storseth: One of the other things we constantly hear is that technology transfer and commercialization must be included in any project or strategy, as it's the weakest link in the innovation project.

What do you think the federal government can do to better connect both ends of the value chain and increase the number of research projects that are successfully commercialized at the end of the day?

● (1605)

Dr. K. Peter Pauls: Are you asking me?

Mr. Brian Storseth: Yes, please.

Dr. K. Peter Pauls: There are projects that really focus on the science at the beginning, and it's sometimes hard to make that connection all the way to commercialization. Some of the larger projects involving the commodity groups and the growers help to focus on that activity at the beginning of the project, where some clear end points in terms of delivery are defined as a product enters the marketplace; but any product cycle is typically a ten-year endeavour. One of the ways in which you can achieve that is perhaps to look at long-term funding, because it takes so long.

The Chair: Thanks very much.

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

Mr. Frank Valeriote (Guelph, Lib.): Thank you both for appearing before the committee today.

I have concerns—and these are meant to be constructive, believe me. Last week the government's own expert panel on federal support for research and development noted that the percentage of Canadian GDP invested in research is only 1%, while the average in 34 OECD countries is 1.6%. This huge gap has been growing since 2006. Then last year I woke up to the surprise that we had actually been cutting our funding for research in food. In fact, NSERC dropped quality and novel by-products from its list of target areas for strategic grants —I think you know that—and the Networks of Centres of Excellence didn't renew its funding for the Advanced Foods & Materials Network, AFMNet. I know you're familiar with the people there, Peter.

What do you think should be done to restore agriculture and agrifood as a priority for granting agencies and for research and development?

Dr. K. Peter Pauls: Part of my motivation in some of the general comments that I made was really to try to support the idea that agriculture is central to what Canada is, that it is a high-tech endeavour and that it supports the jobs of many Canadians. Sometimes I think we take food for granted; it appears on our plates, and we don't realize the economic and intellectual ramifications of agriculture in the Canadian landscape. So that's why I said a public discourse on a food policy might help to remind some of the funding agencies of the crucial importance of agricultural research, writ large.

Mr. Frank Valeriote: Can I be more specific, then? Would you recommend that quality and novel products be put back on the list of target areas for strategic grants for NSERC?

Dr. K. Peter Pauls: I think they should be explicitly stated. Agricultural and agriculture-related research should be part of NSERC's identified areas, for sure.

Mr. Frank Valeriote: Let me ask you this. You mentioned a national food strategy. I absolutely concur, and I'm glad you raised it.

Many people don't understand the value of a national food strategy. I've looked at the strategies of Scotland, New Zealand, and Great Britain. For several years now, our party has been working on the structure of a national food strategy.

Why do you think it's valuable, and what do you think it would contain?

Dr. K. Peter Pauls: Again, I think it's valuable for raising awareness in the minds of the general population the importance of agriculture. Of course, it's not in front of us the way it was with our parents and grandparents, because only 2% of people are on the farm. In terms of the associated industries and all of the infrastructure that supports it, people don't realize the connection there.

I think it's important to have that discussion. In fact, it is being discussed almost daily in our newspapers, in terms of local food and sustainability. All of these are very good touch points. Everybody cares about food.

● (1610)

Mr. Frank Valeriote: Do you think the federal government has a role to play in leading the discussion on a national food policy?

Dr. K. Peter Pauls: It would be brilliant if it did. Yes.

Mr. Frank Valeriote: Mr. Groeneweg, do you have any comments on any of those three questions?

Mr. Franck Groeneweg: I totally concur with Mr. Pauls. Agriculture needs to come back to the forefront of public opinion. The safety of our food is very important to the public, and there are misconceptions about how the food comes to the plate.

I'm not sure about the government leading that type of initiative; rather, it should be making everything possible to support that type of initiative. Canadians, if not the world, need to be reacquainted with the food production system. That's the only way we'll actually be able to increase our production and feed a world at a proper cost.

The Chair: Thank you very much.

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

Mr. Ben Lobb (Huron—Bruce, CPC): Thank you, Mr. Chair.

My question is for Mr. Pauls.

About a month and a half ago, we had an announcement just outside of Hensall for the white bean and coloured bean associations through the DIAP program. For the committee's sake and so that we can have this on record, could you explain how the process begins and just run us through all of the different steps that are taken to actually get to the point of announcing that we're going to embark on this program. Would you be able to do that?

Dr. K. Peter Pauls: Okay, and I hope I've understood the question.

The DIAP program is a program that is available to Agriculture Canada scientists and collaborators in a university. In our case, we were working with the bean producers in Ontario, who have two organizations, the coloured bean and the white bean groups. They have committed to supporting the research for a period of five years at a total of $100,000 a year.

This is a small commodity relative to other commodities in Ontario, yet these organizations have made it a long-term commitment to invest in research, which means that, as researchers, we can go and leverage that funding through various sources. The DIAP funding was an important way of supporting the bean breeding program at the University of Guelph and Agriculture Canada. We have a unique partnership there. Also, that base funding from the growers allowed us to leverage funding from the Ontario government through OMAFRA, and also through the Ontario research and innovation fund.

So in total, that $100,000 a year over a five-year period grew to almost $9 million in terms of support for research in a commodity that is mostly exported out of Ontario and Canada and that brings foreign exchange back into Canada and promotes our quality agriculture in Ontario.

Mr. Ben Lobb: Obviously, that project has a lot of benefits. There are benefits for the university, the farmer, the industry, and for the export markets they could ship to.

Within that description, what was the timeframe between all of the parties sitting down and deciding this was the way to move forward and the project being approved by the department? I'm curious about the timeframe.

● (1615)

Dr. K. Peter Pauls: I don't know exactly when it started, but the commitments by the growers happened well before the start of the DIAP program. But I would say there were some discussions of whether we should use the DIAP program or a cluster program in terms of supporting the research. I would say it took a good eight months between the time we made a decision to go with the DIAP program—writing the proposal, getting feedback, looking at IP issues, getting advice on that, and getting final approval—and the funding actually landing.

Mr. Ben Lobb: I think all parties, all members of Parliament on the Hill, would support projects like the one we've been talking about. Are there any improvements that can be made within the application process to streamline it and make it easier?

If you have any ideas, or if they just aren't on the tip of your tongue right now, I hope you would have the time to submit them, because I think it's important to find ways of streamlining that process to be able to get an answer back more quickly and to get the work started.

Dr. K. Peter Pauls: Well, by the time we actually got the money, we were well into the fiscal year. So we had to hurry up and justify that we had been working on that project with this other, additional funding.

There are a lot of accountability issues around the money, and I realize these are important, but we may be tipping the balance in terms of how much work is required for that accountability to be met versus our spending that time on the research side. It means that a significant portion of the staff in the plant agriculture department needs to spend time with all of those accounting issues. The University of Guelph needs to spend a lot of time accounting. That particular program is actually resident in the commodity groups and they spend a lot of time making sure all of the paper work is in order. There's a lot involved in that.

The Chair: Thank you.

We'll now move to Mr. Rousseau, for five minutes.

[*Translation*]

Mr. Jean Rousseau (Compton—Stanstead, NDP): Thank you very much, Mr. Chair.

My first question is for Mr. Pauls.

You said that you were disappointed with the way organic production projects were coming along under Growing Forward.

In terms of organic farming, what type of scientific development project could benefit agriculture in general?

Can organic farming survive in the medium and long term in Quebec and the rest of Canada?

[*English*]

Dr. K. Peter Pauls: I don't know if I said that I was disappointed with the organic sector. But to answer in positive terms as to how we can support organic agriculture, we do in fact teach an organic major in the B.Sc. Agr., and we do have some research going on in organic production systems. So we certainly endorse and support it.

I think what I would like to see in the long term is a point where the different production systems can work together, because, in fact, they do all end up in a common food system. In Ontario we work hard at segregating material, but the ideal is to have support and respect for the various ways in which food is produced, because they all have appropriate markets and niches to fill, particularly in Ontario.

[*Translation*]

Mr. Jean Rousseau: You also talked about the need for qualified professionals. What types of workers do we need in agriculture?

● (1620)

[*English*]

Dr. K. Peter Pauls: What we find is that our students coming out of agriculture-related programs have no difficulty finding jobs. In fact, I think we could have many more students in agriculture-related educational programs. That's at all levels. At the diploma level, our numbers have increased dramatically over the last few years. At the B.Sc. or the bachelor's level, those students have no difficulty finding jobs in all kinds of related areas. When we have job fairs, all of the major banks are there recruiting students, and then we have jobs for our graduate students as well. They are, as I say, in well-paying, good jobs, often in managerial-related of things, or sales. We have those kinds of small and large businesses that fit into the agricultural system.

For us, it's a story that's just not well-known.

The Chair: You still have more than a minute, Mr. Rousseau.

[*Translation*]

Mr. Jean Rousseau: I would like to ask Mr. Groeneweg a question.

What is your industry doing to promote employment in canola production?

Should Growing Forward 2 include specific projects to address manpower needs in the industry?

[*English*]

Mr. Franck Groeneweg: It's very important to attract youth into agriculture. In our projects, we work with scholarships to ensure that the canola industry attracts very talented people, people who are interested in canola production and canola research and all of the areas that can improve and enhance our production. It is important make the industry accessible to producers as well. Agriculture is a very capital-intensive activity, so it is important that all of this is being looked at.

As an organization, we focus more on production and use of the crop to make it sustainable and to improve our own crop industry. As a farmer, I'll say it again: attracting youth into the industry is very important. It probably starts with making sure that the food is being valued at the consumer level. That's what triggers the interest in our industry.

The Chair: Okay, thank you very much.

We'll now move to Mr. Lemieux.

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

Before I ask a question, I want to clear up a point.

Mr. Valeriote spoke about NSERC, the Natural Sciences and Engineering Research Council. The point I want to make, because we can arrive at the wrong conclusions based on what Mr. Valeriote said, is that decisions taken by NSERC are not influenced by the government. They receive funding for research and innovation from the government, but the projects that are submitted to them are done through peer review. I believe hundreds of people are involved. They break into committees, they review applications, and they make the decisions. They don't report to the Minister of Agriculture; they report to the Minister of Industry.

I think these are important points because in this study, the agriculture committee is looking at Growing Forward and what this policy framework can do with agriculture funding for science and research. And I think the comment on NSERC was off base.

Science and innovation are important across all sectors—and in agriculture for sure. That's why we're looking at this.

As a final point, Chair, NSERC's funding in 2006 was about $860 million, and in 2009-10 it was over $1 billion. So the government has played its role in increasing funding for science and research, but when it comes down to the decision-making process and what gets approved and what doesn't, that rests with peer review within NSERC and is not within purview of the government. I wanted to clarify that because I thought it was an important point.

Following up on science and innovation within agriculture, I would like to pursue this concept of marketability. Many moons ago more research was done that did not necessarily lead to marketable solutions. Normally, the more short term the research is, the more marketable it is within the short term. People see that connection more easily.

So I wanted to ask you, Mr. Pauls, regarding short-term, mid-term, and long-term research projects, and their marketability, could you advise the committee on which kind of projects you think should take priority for the agricultural sector in this current climate? Should there be short-term projects or mid-term projects? It's probably a smattering of both, but I'm wondering if you could comment on where you see value in each of these sectors.

● (1625)

Dr. K. Peter Pauls: A short-term project might look at registering a particular existing herbicide for a new crop. It might take a few years of data to say it's safe and effective, but it wouldn't fund the development of a new herbicide, for example. That takes a long-term effort. It wouldn't fund the development of a new crop variety. Again, that takes a long-term effort for those kinds of things. Even once you have a new idea and a new application, the process of commercialization is multi-step, and it sometimes takes a whole new set of skills for that to happen.

You're right, there needs to be a mixture of funding opportunities and timelines there.

I think that the short term is sometimes a little more obvious, because it's solving problems on a go-forward question. Do we use it for this or do we not use it for that? And so it sometimes seems as if it's a little more immediately applicable.

Mr. Pierre Lemieux: Thanks.

Mr. Groeneweg, with the canola projects that you see in your position, can you give the committee a feeling as to the types of projects involved and the percentage of them that would fall into the short-term category, the mid-term category, and long-term category? Do any of those categories have an influence on the marketability of the projects in the end?

Mr. Franck Groeneweg: Thinking about it quickly, what we're looking at would be in equal thirds. Generally, when we're looking at long-term projects, we're probably venturing out on a limb with some questions that we're trying to answer, which are very important and more encompassing of the whole canola industry.

On short-term projects, it's as if one is able to see the end already and has a pretty good idea of what is going to happen, but maybe also trying to capitalize on some of the findings from the long-term projects. So it's more than likely that the short-term projects will be more commercialized.

In discussions in our committee, we always want to be sure to allocate some dollars to projects that we sometimes feel are a very long shot. But we need to be able to take risks out there, because although we might come to the end of a project and not have figured out a whole lot, at times it will indicate to farmers, “Do not venture that way”, and avoids unnecessary risk for producers. So it is very important that we look for success, but we need to figure on there being a certain number of failures that might in fact be valuable to the whole industry.

Sometimes we may be even a little too conscious of trying to find the big diamond out there, and we also need to make sure that we are careful in our risk management.

● (1630)

The Chair: Thank you very much.

Mr. Groeneweg, and Mr. Pauls, thank you very much for being with us today. We very much appreciate your presentations and your answers to our many questions.

Next we have with us Dr. Douglas Freeman, dean of the Western College of Veterinary Medicine. We also have Matthew Holmes, executive director of the Canadian Organic Trade Association. Welcome.

Mr. Freeman, you're first on the agenda, for 10 minutes or less, please.

Dr. Douglas Freeman (Dean, Western College of Veterinary Medicine, University of Saskatchewan): Thank you very much. It's a privilege to speak with you here today.

As mentioned, I'm representing the Western College of Veterinary Medicine at the University of Saskatchewan.

There are four key points I want to make in my brief statements today. These focus on the One Health initiative; food safety; the issue of disease surveillance; and finally, the role of education, which I would be remiss not to talk about.

Regarding the One Health initiative, it's an initiative that recognizes the connection between animal health, public health, and environmental health. And it's really all about creating linkages and breaking down silos. I note that this was a goal of Growing Forward as well, in creating the science clusters and trying to bring together teams from different areas and promoting collaboration.

A current example on our campus would be developing faculty chairs. As funding is considered for various places, I would support the role of funding things like faculty chairs. A chair in an area like food safety would serve to bring various specialists from multiple different areas together to work on a common theme.

The University of Saskatchewan is the only campus with all the health sciences on one campus—and, again, following that One Health model we bring all of the health science colleges and deans together through a common council. One Health is important if you think about the over 1,400 known infectious micro-organisms. Over 60% of those are zoonotic, meaning they are transmissible between animals and people. If you look at new emerging or re-emerging diseases, 75% of them are transmissible between animals and people. So One Health is a key area in terms of agriculture and animal health, and veterinary medicine and public health.

Many of these diseases can cause very serious illness or even pandemic threats. We've all read the papers or experienced issues with avian influenza, SARS, or even tuberculosis and mad cow disease. I would comment that when the Prime Minister visited the campus not too long ago for the opening of InterVac, he commented that 18 cases of BSE had resulted in a $6.5 billion economic impact.

Regarding food safety, something in the neighbourhood of 76 million Americans per year suffer from food-borne illness, and of those, 5,000 die. In Canada the estimates are somewhere between 11 million and 13 million cases of food-borne illness annually, with a chronic health problem resulting in 2% to 3% of those, at a potential cost of $12 billion to $14 billion. Some of those case numbers are probably underestimated. It's our sense that many of the cases of actual food-borne illness go unreported.

So for a food safety program, important deliverables would be disease investigation and prevention; the training of trained, qualified professionals, again recognizing the broad range of interests that would be important to food safety; ongoing action and research, with that work informing public policy, science, and the policy links, and addressing the whole spectrum from the farm to the fork; and then, of course, the One Health application as well.

There are a number of key stakeholders for food safety. I have a list in my speaking notes, including federal and provincial agencies; producer groups; the food industries; the Canadian Cooperative Wildlife Health Centre; and first nations communities. But the reality is that everyone who eats food is a stakeholder when it comes to food safety. And there is a broad range of those stakeholders and partners.

I mentioned disease surveillance and would point out in this regard that's it's important to focus on rapid disease diagnostics, disease containment, loss mitigation as a result of that, and market preservation. It's important because we need to maintain markets through the health of our national herd, and to provide a safe and secure food supply, and maintain public health by minimizing the potential for zoonotic disease transmission. Disease transmission is critical in all those areas.

It's an area where there is a lot of connection and cooperation as well.

● (1635)

At the Western College of Veterinary Medicine, we have a disease investigation unit that goes out and investigates disease outbreaks at the farm level. A diagnostic lab, through Prairie Diagnostic Services, facilitates those diagnoses. The toxicology centre connects us to the school of the environment. We work with the Canadian Cooperative Wildlife Health Centre, which is a critical component of disease surveillance in the wildlife population that, again, comes in contact with our production animals and people as well. And, of course, in our college's example, there are our traditional and strong ties with agriculture and bioresources.

I would also stress the importance of the Canadian Animal Health Surveillance Network, a network supported by CFIA that links the animal health diagnostic labs together, and also links them to the Public Health Laboratory Network.

Finally, I'd like to stress the role of academia and the important role of knowledge creation in developing expertise in new technology, including through graduate education and broad research initiatives for educating and training the next generation of highly qualified professionals and preparing the next generation of innovators; developing new tools; and linking knowledge and skills interprofessionally, for instance, through the One Health initiative and the multiple disciplines related to areas such as food safety.

I think it's important for universities to be able to address regional strengths and regional issues and then to cooperate nationally. Oftentimes, it seems that when federal funding is sought, we're looking to fund the same process nationally. As an example, in Saskatoon we're one of the few research centres for beef. Prince Edward Island would be an area for aquatic disease investigation, and so forth. It's important that we be able to fund regional strengths and that those universities then cooperate with each other. There is strong cooperation between the veterinary schools and the colleges of agriculture across Canada.

I have a final comment regarding funding. I think it's important to consider going beyond funding on a project-by-project basis and to consider investing in people and programs as well, in order to develop those new projects.

With that I'll end my comments. Thank you very much.

The Chair: Thank you very much.

We'll go to Mr. Holmes for 10 minutes or less.

Mr. Matthew Holmes (Executive Director, Canada Organic Trade Association): Thank you, Mr. Chair, and honourable members. I'm very pleased to be speaking with you today.

My name is Matthew Holmes and I am the executive director of the Canada Organic Trade Association. COTA's members reflect all points along the organic value chain in Canada, from producers to processors, the research community, and traders. I am also a world board member of the International Federation of Organic Agriculture Movements, and the regulatory chair of Agriculture Canada's organic value chain round table.

The Canadian organic sector is growing rapidly, and the domestic market is now worth an estimated $2.6 billion per year, an increase of 160% in four years' time. Our international trade continues to grow through strategic government supports and the negotiation of progressive trade deals with our major trading partners. The organic sector has roughly 4,000 producers farming and ranching 900,000 hectares of land, with over 40% of these operations on the Canadian Prairies—Saskatchewan in particular. Additionally, we have about 1,200 processors and handlers in the domestic organic value chain. However, our market is growing faster than our production. We must respond to this opportunity by remaining adaptive and competitive and applying the science-based information and tools at our disposal.

Organic agriculture offers compelling solutions for today's challenges in agriculture. It is a low-input system and has much to offer all agriculture in terms of innovative methods to reduce input costs and reliance among producers. Organic agriculture is premised on the science of crop rotation, nutrient cycling, and integrated pest management. It has been shown to increase biodiversity and resilience on and around the farm, to sequester carbon into the soil, to reduce energy usage on farm, and it can also lead to lower nutrient run-off into our waterways. These are challenges that all agriculture seeks to address.

Additionally, organic production tends to offer an attractive financial model of a growth market, high consumer demand, and fair incomes for farming families. Our producers tend to be younger than the average producer in Canada, and our model attracts a large number of new entrant farmers. Again, these are priorities that we share with all agriculture.

This does, however, lead to the need for significant knowledge transfer, infrastructure supports, and extension services. We have seen a few provinces explore new ways of assisting producers in adopting innovative attribute-based production. In Prince Edward Island and New Brunswick, for example, the provincial governments have established programs to provide partial financial credit for the costs of organic certification through the initial transition period. This has led to an increase in organic operators to meet consumers' demand for this attribute, but also the reinvestment of available funds into other needs, such as knowledge transfer and the adoption of new science. In Quebec, a multifunctional pilot program seeks to create incentives for producers to meet clearly identified outcomes, such as increased biodiversity and resource management. This sort of innovative programming in the long run will assist in making the agricultural sector more sustainable, economically and environmentally.

Growing Forward 2, in our opinion, presents the federal government with the chance to work with the provinces to expand this type of program across the country in a coordinated way. Under Growing Forward, the federal government invested in the science clusters. The organic science cluster has received over $6.5 million in federal commitments and $2.2 million in industry dollars. The model is highly integrated, bringing industry, government, researchers, and academics together.

The organic science cluster involves work by over 50 researchers in nine provinces, at nine universities, and ten Agriculture and Agri-Food Canada research stations. It is managed by the Organic Agriculture Centre of Canada at the Nova Scotia Agricultural College. The research is directed and controlled by industry-identified priorities, so it is designed to have an impact and to be marketable. For example, the organic science cluster is conducting a wheat and oat breeding program to identify varieties optimized for low-input systems, the findings of which can benefit all models of production, particularly those exploring standardized low-input production systems. This in turn leads to new high-demand markets and competitiveness for Canadian commodities.

The cluster is also studying innovative greenhouse production methods, including inputs, growth media, integrated pest management, high-efficiency lights, and nutrient recycling. By investing in this knowledge creation and application, the government and industry together are supporting the adaptability, innovativeness, and competitiveness of Canada's organic sector.

● (1640)

Consumer trends clearly show that attribute-based models are becoming drivers of agricultural production, whether it is identify preservation and traceability, animal welfare and husbandry standards, or consumer desires for systems avoiding the use of synthetics and genetic engineering. Organic production offers these attributes, with the added control of operating within a regulated and standardized system. Therefore, research into organic agriculture is a great opportunity to study various attributes and production models with a clear focus on marketability, profitability, and sustainability.

We recommend that Growing Forward 2 continue to show leadership and foresight in the area of integrated scientific research.

The Canadian organic sector has quickly become the envy of the world, even though we remain a relatively small player. Since the organic products regulations and mandatory national standards were introduced in 2009, the federal government has pursued the market access priorities identified by COTA's long-term international strategy. These include the equivalency agreements that were reached with the U.S. in 2009 and the EU in 2011. I cannot stress this next point enough: Canada is the only country in the world whose standards are recognized by these two markets. Combined, the U.S. and EU markets are worth 96% of all global sales in organics, estimated at approximately $56 billion per year. The U.S. and the EU do not even recognize each other's systems, but they have made significant progress towards reaching equivalency between them. From my perspective, there is no better time than now to scale up Canadian organic production.

With the support of the agri-marketing program under Growing Forward, COTA has been able to lead export missions and provide assistance to members of the Canadian industry seeking to reach new customers and take advantage of improved market access. We see this as a critical means to developing the capacity of the domestic sector. Specifically, it allows us to meet all of the outcomes of the Growing Forward 2 discussion papers: competitiveness, market growth, adaptability, and sustainability. We encourage the continued focus on international opportunities under Growing Forward 2.

However, as the Growing Forward 2 discussion documents also make clear, our international competitiveness is based on the quality and responsiveness of our infrastructure. Particularly for innovative attribute-based systems such as organic ones, codified standards are essential to ensure that the broad outcomes are met.

Our trading partners and our competitors, the U.S. and EU, have made commitments to maintaining their organic infrastructure by way of long-term standards maintenance. Canada has not. And although we are currently the poster child of organic market access, without long-term sustainable infrastructure behind the organic sector in Canada, we will soon lose this position, or fail to meet the obligations of our current trade agreements. This is an acute concern of the organic sector at this time, and we are looking to work with you to address it.

To conclude, we see great opportunity at this time for the agricultural sector in Canada to collectively benefit from the innovation, sustainability, and profitability the organic sector is pursuing. There is a need for governments to coordinate ways of assisting new entrants into organic agriculture in order to meet consumer demand. And there is need to continue advancing the science and innovation involved through the integrated research that is the heart of our competitiveness and adaptability.

Finally, through our progressive market access approach, our sector is positioned for success, if we can ensure that it has the right infrastructure supports in place to remain competitive and responsive to opportunity.

Thank you very much for your time and attention.

● (1645)

The Chair: Thank you very much.

We'll now move to questioning.

Mr. Allen, for five minutes.

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

Thank you, both of you, for your presentations.

Mr. Holmes, you talked about the sense of opportunity. One of the things I think the committee always wants to see for farm groups is opportunities.

How do you see innovation and research in the organic sector? You talked about an opportunity and the lack of folks to take up that opportunity—or at least, those who are there don't seem to be able to reach the potential.

What sorts of things do we need to structure for the organic sector? As it's one of the most rapidly growing parts of the agricultural sector, what do we need to do specifically to help the sector reach its potential and to get to where it needs to be? What do we need to do at this moment in time to take advantage of the opportunity presented by our regulations being accepted by the two markets where nearly everything goes as far as the organic sector is concerned?

● (1650)

Mr. Matthew Holmes: Thank you for the question.

We've had a wonderful relationship up until now with the government, and we hope to continue to do so. We actually approached the government as early as 1999 and asked to be regulated, because this is a condition for success for us. The organic sector is premised on traceability systems and on assurance and oversight. That's what consumers expect and want. Being regulated and having national standards in place was a critical part of that.

We're growing very quickly, as you've noted. Because the consumer demand is growing faster than our production in Canada, it means, of course, that the market is driven by imports.

We're also pursuing great opportunities in export markets. We've had in place some programs to assist us with that, but if we're looking at what some of our major trading partners in those developed areas have done, such as in the U.S. and EU, I would note that the U.S. Farm Bill has made specific designations for organic agriculture and earmarks for it. The EU's common agricultural policy has specific designations and supports for organic agriculture, primarily to build that production base and value chain domestically.

I would say that in Canada we're at that point right now. We need to look at ways in which.... There is great opportunity here, but we do need to create some incentive. There's a very difficult transition time, typically of about three years, when producers move to organic agriculture and their yields drop, and sometimes significantly. There are challenges as the new model is brought onto that land.

So the programs that have prioritized getting producers through that period have been very successful around the world. They lead in turn to a more robust domestic sector in the long run.

Mr. Malcolm Allen: If I'm following you, it seems to me that some support systems are needed to help us in the transition. As you pointed out, there is a transition.

From a science-based perspective, I appreciate the codification aspect, because I think you're right that it's extremely important. It's unusual for us to have a group come to us and say “Please regulate us”. Usually we hear the opposite. It's “Please don't regulate us”, or “Please take regulations away”. It's enlightening to hear a group say, “Regulations are how we can be good at what we do and be successful”.

I'm wondering if there's a role for innovation and science to play in helping us with the transition, besides the money piece—understanding, of course, that as the transition yields go down, there's a cashflow issue.

Is there a role for the universities, the clusters, to play in helping us transition across that and perhaps reduce the transition period? Is there a role for them to play?

Mr. Matthew Holmes: The research coming out of the organic cluster is still early, but some areas of research and inquiry are absolutely directed along those lines. What are the best rotations? What are some of the best applicable production methods for our climate and geography here in Canada, based on our organic standards in Canada, which are unique to Canada?

So the cluster and the science research will play a critical role in the arsenal or tool box of information that we have. The next challenge is the knowledge transfer. We have a significant number of new entrants to farming, period. Many have not farmed before. We also have an entire shift into a new way of farming, namely, the use of organic production methods, and the learning curve can be steep.

That knowledge transfer, with the significant gains we make in understanding through research, also needs to make its way through extension supports or other means to the producers in Canada.

The Chair: Thank you very much.

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

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

I'd like to welcome the witnesses here today. I appreciate the time you are taking in coming here to make your presentations to us.

First of all, Dr. Freeman, you talked about several areas in your presentation, including One Health initiative and food safety. What types of research do you see are needed, and how would they help, in terms of Growing Forward 2, in any of those particular areas? Do you have anything specific that you'd be looking at?

● (1655)

Dr. Douglas Freeman: Thank you. That is actually a really important question, one that we can probably spend a long time at.

Mr. LaVar Payne: We have about three and a half minutes.

Dr. Douglas Freeman: I guess for me the most important thing for both of those topics, the One Health initiative and food safety in particular, is that they represent broad collaborations of topic areas. So for food safety, these include understanding how the numbers of pathogens may be increasing in cattle, how to decrease the exposure in the processing plants, and how to educate the public to avoid potential food safety issues. When I go to restaurants, I still get asked how I would like my hamburger cooked, which should never be a question.

And likewise with the One Health initiative, how do we connect? Over the past year we have been trying to connect the medical school deans in Canada with the veterinary school deans. There are issues there of inter-professional education and testing methods—for example, looking at rabies and its pathogenesis in dog bites, and the knowledge-base of physicians and their understanding of how to treat medical patients in that regard, and managing tuberculosis in areas in the north where country foods are important.

So those are all topics that are currently being looked at, and there are more, but the important thing in those areas is to be able to bring broad collaborative groups together.

Mr. LaVar Payne: Well, that was really one of my questions. How do you get people, from the farm to the fork to the researchers, all together to make sure that this research is done—the right research to end up with food safety?

Dr. Douglas Freeman: I'll speak of my experience prior to coming to the University of Saskatchewan and then of being there as well. In my experience, the people in those areas are interested in working together on that topic. So, for instance, in our projects on food safety at North Dakota State University, the experts in risk communication were eager to get out and meet with the producers and to understand how to deliver the message back to the producers on what they could do to mitigate risks for food safety or on how to get the message out to the people working in a processing plant that HACCP controls are important and needed to be followed. The agricultural engineers wanted to work with the microbiologists to develop ways of identifying signals of contamination of meat at the store level.

So when you have an important question like that, people will come together. Again with academia and the extension programs and things like that, part of our role is to get that information back out to the appropriate groups.

So how do we do it? I think I mentioned chairs, for example. We're in the process of forming a chair on food safety. When you have somebody of knowledge and stature in an area who can work to be the person who brings all of those groups together, it can be very effective.

Mr. LaVar Payne: And that's the go-to person?

The Chair: The go-to person.

Mr. LaVar Payne: How much time do I have left?

The Chair: You have half a minute or a little better.

Mr. LaVar Payne: I knew it was going to be half a minute.

Mr. Holmes, I know you talked about your integrated scientific research and the need for infrastructure and the knowledge transfer. So is there something in particular among your priorities that would be beneficial to the organic group?

Mr. Matthew Holmes: I would say that what is significant and unique to the cluster program is that it's industry-directed. So what you see there is the ability of industry to prioritize with the research community and the various partners where some of those research dollars should go. So it lends itself to an efficient use of public funds—and probably with an incentive for industry matching dollars. Typically what industry wants to spend its money on is something that is marketable and has real results in the short- to medium-term, and probably something that can then be shared longer term as a best practice or lesson learned.

We saw that as a very effective program and really want to build on the foundation that Growing Forward established.

● (1700)

The Chair: Thank you very much.

Now I'll move to Mr. Valeriote for five minutes.

Mr. Frank Valeriote: Thank you, gentlemen, for coming to Ottawa to speak to us today.

Dr. Freeman, I'd like to start with you. Over my three years on the agriculture committee, I have learned—and I think I'm correct—that food safety goes beyond the point where it starts at the processing plant up until the food gets into my mouth. What I learned is that food safety begins with how animals are treated on the farm and how they're transported, and their living conditions, to a certain degree. I'm wondering if you agree with that assessment, and if so whether you think that some undertaking should be made by the government to study the living conditions of animals, animal welfare and health, in a more meaningful way.

I ask that because I didn't see much attention given to the issue in Growing Forward 2 and the Saint Andrews Statement. While I asked for a study on this in the previous Parliament and we concurred on having one, we never got to it, simply because an election was called. I'm wondering if you think something more should be done in this area.

Dr. Douglas Freeman: I agree with your comments that food safety is an issue that extends all the way back to the ranch or farm. For instance, there are data showing that cattle will excrete more E. Coli 0157 during a longer transportation ride than a shorter one. So, yes, I agree with you. Certainly animal well-being is an important component of animal health. When we consider worldwide markets, I think how we treat our animals is becoming more of a factor there as well. And animal welfare is more than just animal health; it's about animal handling and well-being, which can certainly affect the food safety related issues as well.

Mr. Frank Valeriote: Would you urge that to be more meaningfully considered in Growing Forward 2?

Dr. Douglas Freeman: I would definitely agree with that, yes.

Mr. Frank Valeriote: Thank you.

Mr. Holmes, thank you for your presentation.

You mentioned filling the gap between the time a farmer decides to move into organic agriculture and the approximately three years it takes them to establish themselves in farming. You also mentioned establishing regulations for organic certification. In what other countries are those kinds of supports given, both organic certification and support, and do you feel there are any other things beyond those two that can be done to create the infrastructure support you spoke of in your remarks?

Mr. Matthew Holmes: Thank you.

The 27 members of the EU would have had at some point, and I believe they still have, some program in place to support that transition. Of course, it's a country-by-country decision, a member-state decision. Similarly, in the United States there are probably 30 to 40 states that have invested in this sort of program to assist producers who wish to convert to organic methods. There are other countries as well that have invested in this, but we would have to follow up with you with the exact information.

It's an important investment, and with the shared jurisdiction in Canada of agriculture between the provinces and the federal government, it seems something that Growing Forward 2 could really address. So it could be something that's there, if it were a priority for an individual province to pursue, in having a specific program to meet their needs locally on the ground for their producers and communities. It seems a great opportunity right now to look at something like that.

In terms of other infrastructure, we have the basics in place. We have the regulation, which refers to the standard that we have, as I mentioned in my remarks. We're quite concerned right now that without a system in place to maintain that standard.... It's national standard of Canada by the Canadian General Standards Board, which has a technical committee made up of industry experts who volunteer their time. There are probably 45 voting members, 90 members in total, and it's quite an expensive undertaking to move through a consensus model that the CGSB requires. It also requires a five-year review. Our regulation is making this mandatory, not to mention our trade agreements with our major trading partners, which require that every time they change something in their standards, or we do, we need to review the agreements.

Without that infrastructure support in place, we're concerned that we could have a lost opportunity or a bit of a fall.

● (1705)

The Chair: You're out of time, Frank, sorry.

I'll move to Mr. Zimmer for five minutes, please.

Mr. Bob Zimmer (Prince George—Peace River, CPC): I have a question for Matthew, to start with.

It's good to hear another great Canadian agriculture story, that we're leading the world in this area.

I want to ask you specifically what needs to be done, in your opinion, to increase the efficiency of technology and innovation transfer? We often see it developed in its own little island or area, and this is inefficient, to say the least. We don't see it actually reaching the farmers. What can be done about that?

Mr. Matthew Holmes: That's a great question.

My colleague here has spoken, to a certain degree, of having some experts in the field who are noted resources. They tend to attract the right people around them to get some of the messages out, or to get the media interested.

Something the cluster has done is that it's brought together very different researchers, industry, and government. Many of these people weren't organic researchers before but they're now working on the organic cluster. What you see from that is a great opportunity for convergence, for alignment, for cross-pollination, which is something that we like in the organic sector. It also can lead to the sharing of ideas that go beyond just one particular method or model of production.

Many in the organic sector feel there are lessons to be learned through organic research and innovation that aren't exclusive to organic agriculture by any means. You don't need to be certified organic farmer to use some of these things and you can reduce your costs significantly if you're using the right rotation with different inputs or reduced input use.

So we think that might offer some competitiveness for all Canadian producers.

Mr. Bob Zimmer: Dr. Freeman, can you answer the same question? Basically, how do we make more efficient that transfer of innovation to the farmer?

Dr. Douglas Freeman: Thank you.

The model of extension outreach—and here I can speak from the university setting—is a great model. It's training the next generation to go back and work in the industry and this system of continuing education or outreach is bringing the new information back out into the field.

In our area of veterinary medicine, our veterinarians, of course, are on the farms, working with the producers and bringing the newest information on animal health back to them. And I would presume there are similar roles in other areas.

I would just like to add a comment on the clusters as well. I really applaud the Growing Forward program for its focus on creating these clusters, because that's a way of not only bringing ideas together for the research but also then disseminating the information much more broadly.

I would like to pose a suggestion there be an additional focus in terms of making sure that these clusters actually are interacting with each other and are not a group of isolated projects, and that a series of national advisory committees, or whatever, actually evaluate the cluster on its cooperative work.

Mr. Bob Zimmer: Do I have much time, Larry?

The Chair: You have about a minute and a quarter.

Mr. Bob Zimmer: Perfect.

I have another question for Matthew Holmes.

This is putting you on the spot a bit, but if you could decide on a ratio of funding for research versus technology transfer and you had to weigh it out, where should the money go? Prioritize it: where would you put that money?

Mr. Matthew Holmes: Yes, that puts me a bit on the spot. I guess, with organic agriculture right now there is almost no extension support across the country, or very little. Some provinces have invested in extension specialists, Quebec and B.C. being examples. NSERC has supported the creation of an organic extension agent in Atlantic Canada. Apart from that, it's quite piecemeal. And because the sector is horizontal, you have many different commodities and many different knowledge areas and we have many gaps.

● (1710)

Mr. Bob Zimmer: Where do you see a bigger gap, if you know what I mean?

Mr. Matthew Holmes: If you look at our organic production in Canada, it parallels many of our other traditional productions. We have a strong base in oilseeds, pulses, wheats, and grains, and those are areas that provide great opportunities for further research and further extension support.

The Chair: Thank you.

I'll move to Mr. Atamanenko.

Mr. Alex Atamanenko (British Columbia Southern Interior, NDP): Thanks, Mr. Chair, and my thanks to both of you for being here.

I'm just seeing how my train of thought is going here. We're discussing science and innovation. Many are saying, and we're being told, that one of the reasons we should be working on science and innovation is that we're trying to increase production and GMOs and our ability to feed the world.

The report by the International Assessment of Agricultural Knowledge, Science and Technology for Development, or IAASTD, was endorsed by 58 governments, including ours—except the section on GMOs. It says that the answer is not just more food production. It says that in 2000 the world was producing enough food to feed everyone an average of 2,800 kilocalories per day, and yet 850 million people were still hungry. The report goes on to say that we can't techno-fix our way out of problems. They lean more to sustainable local agriculture.

In addition to continuing research in what we call the industrial agricultural model, how can we help other countries through our research in animal sciences or animal health to improve the sustainability of their agricultural practices?

The example we often see is that when subsidized U.S. rice goes to Africa, people who are producing rice get displaced from their farms, and then they have to rely on the foreign rice. We've seen this in Haiti and Mexico. How can we as a nation help other countries, through our research and innovation, to work on their sustainability, have healthier animals, and also to produce crops to feed themselves?

I'll just leave that open.

Mr. Matthew Holmes: The United Nations Conference on Trade and Development has put out a significant amount of research on how organic production methods offer a great opportunity. Most of the world uses low-input farming at this point, and it's not likely to change any time soon. We can learn the lessons of our developed country here in Canada. The EU and the U.S. also have put significant investments into organic research, in order to look at how these low-input methods actually provide a great opportunity for localized systems around the world.

We also see a great benefit for trade to continue. Those African farmers rely on an organic market in Europe to provide them with an alternative method, and one that is not putting them into a cycle of dependence on other methods of agriculture, which could be harmful to them.

Mr. Alex Atamanenko: Dr. Freeman, do you have any comments on that?

Dr. Douglas Freeman: I do. It's a great question, and so much of it goes beyond our scientific knowledge on animal health or animal husbandry or disease transmission.

In my experience of working in Uganda and east African countries, I found that they have some of the same disease issues we have here, only they are magnified because of lack of eradication programs for tuberculosis or brucellosis, or the lack of the infrastructure to deal with a major anthrax outbreak. So some of the information that we develop here can be applied there, but you need to be understanding of culture and other factors.

In other cases, we need to be aware of what works in those settings. In Uganda goats are an important source of meat. They're probably one of the safest meats in Uganda, to judge by incidents of food safety issues. Goats are good for these pastoral settings compared with other livestock, because of what they're able to eat. So understanding how you might work with that species in Uganda, as opposed to a Holstein dairy cow or something, would be important. The bottom line is that it's important to engage those countries.

I'll speak now for veterinary medicine. The training that veterinarians get in animal health and public health is broad-based, and veterinarians can have a significant impact in those areas around the world. And they do. Our college is trying to expand our efforts to bring in international students, and I think it's important that we as a country do that as well.

● (1715)

Mr. Alex Atamanenko: Dr. Freeman, do we send our expertise in this area overseas through CIDA or through other organizations to assist people on the ground with the health of their animals, for example?

Dr. Douglas Freeman: I can't speak globally for the whole country, but certainly individuals who have an interest in this are involved and do participate in collaborative grants that do that. We have some faculty involved in that way. The veterinary schools here are involved with the World Organisation for Animal Health, which would have a role there as well.

I'm not aware of our having a focused or broad program, but there are many avenues to do that, including voluntary efforts through Veterinarians without Borders and things like that.

The Chair: You have just a few seconds, Alex.

Mr. Alex Atamanenko: I have just a final question.

Matthew, I believe it was the Union of Concerned Scientists that came out with a statement on this. I was actually at a meeting here with one of the representatives who said, when asked whether we can feed the world organically, “Yes”.

What's your take on that?

Mr. Matthew Holmes: Our opinion is yes. We've noted—and it was also noted earlier—that we currently grow enough food to feed the world.

The longest field trials comparing organic and conventional systems are done by the Rodale Institute in the United States, and show increased yields and resilience under organic agriculture. So we do feel there's a positive alternative there.

The Chair: Thank you.

We'll now move to Mr. Wilks.

Welcome to the committee. Go ahead for five minutes, please.

Mr. David Wilks (Kootenay—Columbia, CPC): Thank you, Mr. Chair.

Welcome, gentlemen, and thank you for coming this afternoon.

My first question is to you, Dr. Freeman.

Earlier you mentioned collaborative groups. I was just wondering with regard to that, what tangible measures you would take to promote collaboration and partnership among industry, producers, universities, governments, and consumers?

Dr. Douglas Freeman: I guess my presumption is that consumers would probably link through the industry ties as much as anything else.

As a department head of veterinary science in the United States, I sat on a national animal health advisory committee that looked, on an annual basis, at multi-state collaborative projects funded by the USDA. Part of that assessment looked at whether they were working together or somewhat segregated but linked in the project. So I think a model like the clusters would be a very valuable tool to give those groups feedback from outside, in a committee-type organization, to say that they could work more closely together than they are.

Mr. David Wilks: Matthew, do you have any comment at all? If you don't, I have a question for you.

Mr. Matthew Holmes: No, that's okay.

Mr. David Wilks: You'd mentioned that we seem to be lagging behind in long-term standards maintenance. What are some of the opportunities that could be created to increase the long-term standards of maintenance? Where do you see us going there?

Mr. Matthew Holmes: Some of it is merely administrative. It would involve establishing some core funding for the departments involved in providing that support to the organic sector to maintain and ensure there's a secretarial function being played.

The majority on the technical committee operates on volunteer time, so it's simply a matter of bringing them together through physical or technological means to form working groups and to review and assess submissions. One of the rationales for this, of course, is that the standards are evergreen. They're meant to be evergreen. That was why we pursued smart regulation, with regulation by reference to a standard. In fact, the Canadian Food Inspection Agency won an internal award for their collaboration with the organic sector in establishing these standards and regulations. It's actually a great model.

One of the things that benefit us in the Canadian sector is that we can remain adaptive and innovative as a new production practice or a new material is identified. We want to be able to adjust the standards over time to reflect those innovations, those findings from our research, for example, that could really give us a competitive edge. Again, that explains part of the need for that infrastructure.

● (1720)

Mr. David Wilks: Do you have anything at all on that, Dr. Freeman?

Dr. Douglas Freeman: I have nothing here.

Mr. David Wilks: How much more time do I have?

The Chair: You have two minutes.

Mr. David Wilks: I will defer to Mr. Zimmer, if he wants to—

The Chair: Go ahead, Mr. Zimmer.

Mr. Bob Zimmer: Again for Matthew, I am wondering about the current situation with organics. It sounds like there is investment in there and I just want to know if you have a problem in obtaining venture capital. If so, could you gives us ideas on how to make that capital easier to access.

Mr. Matthew Holmes: We're just starting having an interest expressed in that area by venture capital. There have always been, to a certain extent, investors investing in individual companies. As we continued to grow through the recession, at anywhere from 7% to 15% growth through 2009-10, when most other food and agricultural sectors saw negative growth, we have certainly noted the sector beginning to catch investors' attention. It's early; it's beginning.

Again, what we have is a horizontal sector. So it's in every commodity and every processing area and we have some that well out in front and doing well and established and strong. They have sustainable systems in place internally, and we have others that are challenged. So the value chain in Canada is currently broken in some places and we're doing what we can to try to develop it in a consistent way.

The Chair: Thank you.

We'll now move to Ms. Raynault. Actually with the time the way it is, if you could ask one question, we'll get an answer to that, which will equal the time out.

[*Translation*]

Ms. Francine Raynault: Thank you, Mr. Chair.

My question is for Mr. Freeman.

Could the Canadian Food Inspection Agency do more for food safety?

[*English*]

Dr. Douglas Freeman: I'm not sure I know how to answer that.

I think the general answer is the following. From my perspective, the CFIA has certainly identified food safety as a key area and does invest in it in a number of ways. I think there is always more that we can do, and it's certainly a changing field, with new and emerging diseases and new husbandry methods and things like that. So yes, I think it's an area of importance and deserves added attention, but I don't want to detract from what they are already doing in that area.

The Chair: Thank you.

Mr. Lemieux, a quick question?

Mr. Pierre Lemieux: Thanks, Chair. I had a whole range of questions but now I have to focus on one.

The question I have is about the many directions that research and innovation can go. So I want to ask each of you—and perhaps I'll start with you, Matthew—the following. Within the organics sector, for example, what type of initiatives do you think would most benefit the sector in terms of research and development? For example, there are farm practices, there is new crop development, there are other things that can be done.

Are you able to provide the committee with some insight as to what the organic sector would see as the most pressing, and perhaps the most influential, innovation-type research?

● (1725)

Mr. Matthew Holmes: Thank you.

Again, we found the clusters to be integrated in nature; and the industry advisory allowed prioritization to take place within the cluster itself in terms of the areas where there was already private investment and marketability. So I think we're interested in low-hanging fruit and in trying to pursue some of those.

In the longer term, I'd love to say that we have some really ambitious goals, but let's wait until the fiscal situation is in better shape.

Mr. Pierre Lemieux: I wonder if the cluster set-up has helped prioritize research initiatives within the organic sector.

Mr. Matthew Holmes: I spoke with the two principal researchers yesterday and clearly had a message from them that it was a very successful model.

The Chair: Thank you.

Those were two questions, Mr. Lemieux.

Actually the chair is going to take the prerogative. I just wanted to clarify a couple of statements.

Mr. Freeman, you were asked by Mr. Valeriote about animal safety and that kind of thing in general.

Being a farmer, and a livestock farmer, I know a lot of the rules. Would you agree with the statement that in our animal trucking practices and animal handling practices generally, Canada is one of the leaders in the world in the way we expect animals to be treated as they're headed to slaughter or other places?

Dr. Douglas Freeman: Thank you. That's a great question.

I'll have to qualify my answer. As a relative newcomer to Canada, I may not be as well informed as others, but that would certainly be my impression.

The Chair: Okay, thank you.

Mr. Holmes, as I indicated, I'm a farmer. I don't come from the organic side but I do recognize that it is certainly a niche market that is expanding very rapidly.

I'd like to know if you agree with the statement that farmers in general are very adaptable. I've always operated with the rule that if people want me to grow pink cattle, I'll grow pink cattle—and I guess it's the same with organic farming or any other form of farming.

My question is: would you agree that if the public demanded that 80% of food production be organic, farmers would adapt and move that way? Would you agree with that statement in general?

Mr. Matthew Holmes: I love pink cattle.

Some hon. members: Oh, oh!

An hon. member: What was that, again?

Mr. Matthew Holmes: I love pink cattle.

I would say that what we're seeing in the market right now is exactly that. There is a consumer, market-driven desire for these sorts of attribute-based production systems.

I think what organic agriculture has done is to introduce a full traceability system and, basically, in some senses invented the modern identity preservation system. What that offers consumers is something that really resonates with them right now, so I think there are—

The Chair: Thank you.

We just have a little bit of business to do here, but I want to thank both of you for being her today as part of our study. Thanks for taking the time out of your busy schedules. It was very informative. Thanks very much.

Members, before we adjourn, could you start thinking about giving me and the clerk some kind of direction on how long you want to continue with the science and innovation topic? It takes time to line up witnesses and that is why I mentioned, at the start of the meeting, having the department here. For them to wait until the day before to say yes, we'll come, complicates our getting witnesses. So it would help us if you could think about this and maybe give us some direction on Thursday as to where you want to go and for how much longer.

The meeting is adjourned.

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