

Standing Committee on Agriculture and Agri-Food

Wednesday, April 9, 2014

• (1535)

[English]

The Chair (Mr. Bev Shipley (Lambton—Kent—Middlesex, CPC)): I'd like to call to order our meeting of the Standing Committee on Agriculture and Agri-Food, meeting number 25.

Colleagues, we have witnesses involved with innovation and competitiveness, which is a study that we have wanted to get into.

Today we have with us, from the Department of Agriculture and Agri-Food, Siddika Mithani, the assistant deputy minister of the science and technology branch; and Gilles Saindon, associate assistant deputy minister of the science and technology branch. We welcome them to the committee.

With that, I want to welcome our committee members back.

Madam Michaud, welcome to our committee as a visitor.

When I look over on this side, we have all of our committee-men back. Thank you very much.

I'm not sure who's making the presentation, but you have 10 minutes, please.

Dr. Siddika Mithani (Assistant Deputy Minister, Science and Technology Branch, Department of Agriculture and Agri-Food): Thank you very much.

[Translation]

Good afternoon and thank you for inviting us to speak to you about innovation and competitiveness in the Canadian agricultural sector, from the science perspective.

I am joined here today by Dr. Gilles Saindon, Associate Assistant Deputy Minister of the Science and Technology Branch. [*English*]

Science and technology continue to be critically important in maintaining the profitability and competitiveness of Canada's agriculture, agrifood, and agri-based products sector. Agriculture is an integral part of the global economy, and as with many other industries, success in the 21st century depends on knowledge, information, and technology, with Canadian farmers and agri-based companies participating in complex multinational value chains.

Fundamentally, the challenge for agriculture is to satisfy the demand for food from a rising and generally more affluent world population. With an abundance of natural resources, Canada is well positioned to respond to this challenge. Science and innovation will be key factors in determining whether the sector's potential can be realized where our resources advantages are translated into commercial opportunities.

The science capacity of Agriculture and Agri-Food Canada, AAFC, has been an important part of Canada's agricultural innovation system for almost 130 years. The need to develop crop and livestock technologies, along with appropriate conservation farming systems suited to unique Canadian conditions, has been a constant and overarching driver of AAFC science investment. The science and technology branch uses an approach based on partnerships, working with industry, universities, and colleges, and other science providers to provide science that enhances the sector's resiliency, fosters new areas of opportunity, and supports sector competitiveness.

Partnerships and collaboration leverage federal research investments by bringing together necessary capacities across institutions and helps to focus research on areas of benefit and importance to the sector. An example is our participation in the Canadian Wheat Alliance. AAFC scientists are participating with colleagues from the National Research Council of Canada, the Saskatchewan government, and the University of Saskatchewan. This is a collaboration built on an investment of up to \$97 million in the first five years of this eleven-year initiative to help grow the wheat sector. The Canadian Wheat Alliance will support research in wheat breeding, genomics, biotechnology, and pathology, which will support and improve the profitability of Canadian wheat producers.

International collaboration is also important, and a means by which we keep abreast of developments around the world as well as sharing data and expertise on the world stage. In particular, we are able to assess new ideas and emerging technologies, enhance Canadian science and technology capacity, provide science advice and expertise to support trade and international development, and support AAFC and Government of Canada international commitments.

For example, we are taking part in the durable rust resistance in wheat project, an effort by 23 research institutions around the world to address the spread of Ug99, a serious disease of wheat that threatens production worldwide.

[Translation]

Today our network spans the country with 19 research centres located across diverse agricultural ecozones, serving both national interests and regional needs. Each of our research centres has a critical mass of expertise and specialized facilities. For example, pilot plant facilities at our food research centres at Guelph and Saint-Hyacinthe; advanced genomics capabilities at Saskatoon, London and Ottawa; facilities for swine and dairy in Sherbrooke; and beef cattle at Lethbridge and Lacombe.

[English]

But the department recognizes that the sector, and the science capacity available to support it, continues to evolve, and so too must our management and delivery of science and technology. In that context, I want to mention two recent events important in that regard.

One was the 2012 creation of the science and technology branch, a merger of two existing branches that integrated the department's capacity for research, development, and knowledge transfer and achieved a more coordinated interface with industry and other groups.

The new branch is focused on supporting the key priorities of major commodity sectors in meeting key scientific challenges facing 21st century agriculture: increasing agricultural productivity, enhancing environmental performance, improving attributes for food and non-food uses, and addressing threats to the agriculture and agrifood value chain.

A second key event was the renewal of the federal-provincialterritorial agricultural framework, Growing Forward 2. The GF2 consultation process among governments and industry established a clear consensus on the importance of science and innovation, and gathered a wide range of input on industry priorities for science and technology.

The GF2 program suite responds to these priorities, providing both government and industry-led funding to encourage collaborative approaches in addressing the sector's scientific challenges.

The GF2 Agrilnnovation program is a five-year up to \$698 million initiative. Of this, \$468 million is available for funding projects based on applications from industry. The program supports innovation in three streams: research accelerating innovation, which is stream A; industry-led research and development and knowledge transfer, stream B; and enabling commercialization and adoption, stream C.

GF2 provides funding for research, development, and knowledge transfer activities under streams A and B of the five-year federal Agrilnnovation program.

Stream A, research accelerating innovation, is used by AAFC for upstream scientific research with a focus on understanding and mitigating threats to Canadian agricultural production and addressing long-term challenges and opportunities facing the sector. It is also used to generate knowledge to help the sector enhance its resilience, sustainably increase productivity, improve the bottom line through more efficient use of inputs, and take advantage of business opportunities related to environmental attributes. Stream B is industry-led research, development, and knowledge transfer. This stream builds on the success of industry-led science clusters and projects funded under the previous agricultural framework, Growing Forward. The program provides funding for industry-led projects and complements activities undertaken in stream A.

Funding under stream B is available for agriscience clusters and agriscience projects. Clusters aim to mobilize and coordinate a critical mass of scientific expertise in industry, academia, and government; they are national in scope, industry-led, and address several themes that are priorities to the industry. They can be commodity-based, or may be horizontal in nature, where they address cross-cutting issues that are of interest to more than one commodity. Agriscience projects are aimed at a single project or a smaller set of science projects that would be less encompassing than a cluster, and may be national, regional, or local.

As of March 24, 2014, there are nine agriscience clusters in place, led by the Canadian Cattlemen's Association, Pulse Canada, Dairy Farmers of Canada, Western Grains Research Foundation, Alberta Barley Commission, Canola Council of Canada, Canadian Poultry Research Council, Canadian Horticultural Council, and the Canadian Field Crop Research Alliance. As well, 14 industry-led agriscience projects cover a broad range of specific initiatives—for example, helping farmers with new production practices that address emerging challenges, or capturing market opportunities by developing new varieties of cereals, oilseeds, forages, and horticultural crops. Discussions within the sector are continuing, which will see additional clusters and science projects in the future.

A common feature of all clusters and projects is that they represent a collective will of industry proponents, from a broad base, to guide cohesive actions by multiple research providers. They all are marketdriven or opportunity-driven

Science and technology branch also receives funding from GF2 to improve grower access to newer and more effective pest control tools through the pest management centre's minor use pesticides program. Under this program, AAFC works with provincial governments, industry representatives, and producers to match pest problems with minor use pesticide solutions, establish priorities and gain industry support, conduct field trials, and prepare pesticide submissions for new uses to the Pest Management Regulatory Agency at Health Canada.

• (1540)

I'll close by saying that in the context of our strategic planning around science, we are focused on finding solutions for the sector, taking a comprehensive approach so that all of the research, development, and knowledge transfer we perform comes together to fit within the landscape of other science providers, and we collaborate with these other players—industry, government organizations, colleges and universities, and others—in addressing the scientific priorities of the sector.

We appreciate the opportunity to appear before you today. We'd be happy to answer any questions you may have. Thank you.

The Chair: Thank you very much for your presentation.

I think what has been laid out in front of us, colleagues, is that now we've set a bit of the framework of what we're after here in terms of innovation and competitiveness for this great agriculture industry that we have in Canada. It has laid out a little bit about what we have now and then how does that take us forward in terms of sustainability, research and development, and the innovation part of it. I think it's a great foundation to start on this significant study that we're doing.

With that, I will start with our first round.

Madame Raynault, you have five minutes, please.

• (1545)

[Translation]

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

I want to thank the witnesses for being here. It's a pleasure to have you.

You talked extensively about innovation in the agriculture and agri-food sector during your presentation. In your view, what really fosters innovation in the sector and what are the main barriers to innovation? The question is for either one of you.

Mr. Gilles Saindon (Associate Assistant Deputy Minister, Science and Technology Branch, Department of Agriculture and Agri-Food): To my mind, the most important element in a successful innovation chain is coordinating and aligning the efforts of the various partners. That ensures that everyone is performing their role effectively and that we can implement all the pieces we are responsible for and pass them on to the next stakeholder in the chain in a coordinated and organized manner. And anything that prevents clear communication and cooperative working relationships would be a barrier to innovation.

Ms. Francine Raynault: What are the barriers to effective coordination and cooperative working relationships?

Mr. Gilles Saindon: We operate in a sphere of shared responsibility, involving stakeholders in universities, provincial governments and the private sector. So we need well-structured tools to ensure all those parties can work together smoothly. That's what science and agri-science clusters do for us. Those are the mechanisms we have put in place, and that is where we focus our efforts.

Ms. Francine Raynault: You said you work with universities, but we know that scientists have been fired. Does that hinder innovation and research? Does having fewer scientists hurt your work?

Mr. Gilles Saindon: It's important to consider the entire chain, all the links working together. Of course, more scientists can be hired, but their expertise can also be harnessed through science clusters, allowing us to work with those in universities or the private sector. That's one way to make sure we engage all those people. The existing funding enables us to work with them more effectively.

Ms. Francine Raynault: Do you have enough funding to work with them?

Mr. Gilles Saindon: Dr. Mithani talked about innovation in agriculture. The program accounts for \$700 million, which gives us nearly \$468 million to work with industry on industry projects. That provides us with a solid base.

Ms. Francine Raynault: Are you short on funding for more research?

Mr. Gilles Saindon: Demand for funding always exceeds the money we have available, but we are managing to cover the entire sector quite well. A rigorous process is used to select projects to ensure all possible thrusts are addressed.

Ms. Francine Raynault: What can the federal government do to encourage innovation in the next few years? What programs would you like to see?

Mr. Gilles Saindon: Again, we'd like any program that makes cooperative working relationships possible. What's important is working collaboratively and bringing forward a variety of perspectives. And that isn't limited to branches of science; it also fosters a good understanding of markets. The clusters make that possible, and certainly, that is knowledge we want to maintain.

Ms. Francine Raynault: The committee has heard from numerous stakeholders in the agriculture and agri-food sector in the course of previous studies.

Would you say that the federal regulatory framework helps or hinders innovation, and why?

Mr. Gilles Saindon: I'm not sure I could say exactly whether it helps or hinders innovation. The regulations are complex; and intellectual property issues can sometimes make it difficult to work together as far as the various regulations are concerned.

Over the years, we've found ways to work together effectively. That said, intellectual property is still a big challenge.

• (1550)

Ms. Francine Raynault: I still have a bit of time left, if I'm not mistaken.

[English]

The Chair: You have half a minute.

[Translation]

Ms. Francine Raynault: The axe just fell on the Senator Hervé J. Michaud Research Farm in Saint-Joseph-de-Kent, near Bouctouche. It's shutting down.

It's a shame to see research farms close. It means fewer scientists working on agriculture and agri-food research and innovation.

What is your take on the situation?

[English]

The Chair: Mr. Lemieux.

Mr. Pierre Lemieux (Glengarry—Prescott—Russell, CPC): On a point of order, Mr. Chair, I just want to remind I guess all committee members that when we have officials from the department, they're not really in a position, and we shouldn't really put them in a position, where they have to comment for or against government decisions.

So I think our questions should be more on the issue of innovation as opposed to some of these other subject matters.

The Chair: Your point is well taken. I think the department heads would know that and would likely have responded in that way. Thank you for the point of order.

Madame Raynault, your time is up; in fact it's well over now.

Mr. Lemieux, you have five minutes, please.

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

Thank you to our witnesses for being here.

I guess I'll just start my comments by saying why I myself am interested in innovation and competitiveness. Certainly innovation has always been important within agriculture, but I would argue it's even more important now, particularly as we need our farmers to be more competitive, because we've opened foreign markets to them. So by putting in place trade deals—for example, with South Korea, and we're going to have a European trade deal implemented in the foreseeable future—this gives our farmers a chance to compete. But we need innovation on the side of our farmers.

So I see this as very essential; it's a very forward-looking study that we want to do. I see it in terms of innovation being able to help our farmers lower their input costs. I'm thinking of lower fuel costs, lower use of pesticides, lower use of herbicides, all saving money for the farmer and making them more competitive, and of course innovation that might help with better yields—for example, betterquality crops.

I'm also thinking of customer-centric crops. What I mean by that is if we're going to sell a particular crop to Europe, they may be looking for certain plant traits that are different from crops we sell to Asia. I think innovation helps our farmers to determine what crops best suit the market that they want to sell into. So I see that as being very important.

I want to thank the department for their initial comments on research, especially through the AgriInnovation program. I also appreciate the fact that you mentioned that there is good partnership and cooperation among the key players within the research and innovation fields, be it in government or within the private sector itself.

I would like to ask something about the AgriInnovation program. You mentioned that there are really three different thrusts. There is a research-type thrust, industry-led type research, and then enabling commercialization of innovation. Let me first ask a question about stream A, which is research. Could you perhaps explain to the committee, in perhaps just a little bit more detail, how that stream works in terms of funding? What kinds of projects perhaps might be funded under that stream? What's the horizon of stream A? Is it a two-year horizon, a five-year horizon, a ten-year horizon? Does it have a commercialization horizon, or is it broader than that?

Mr. Gilles Saindon: What I'd like to say on this is that this is the research that we will do as a department; that's all the research under stream A. Particularly it's around the thrust or area of crops, livestock, and food, and also in the area of sustainable production systems in terms of environment. So we've focused and established a few of these emerging problems. For example, we have issues with fruit flies in berry production and fruit production. We also have issues in the area of food safety, and alternatives to antibiotics.

Those were the areas that we identified ahead of time that were part of the development and the discussion with the province when we had the discussion on GF2. The way we go about it is we go through a call for proposal within the organization, and we have a system to approve these projects. These typically span three to four years in scope, and we have a large number of them in the area of the environment as well as crops.

• (1555)

Mr. Pierre Lemieux: Where does the input come from? For example, you have government researchers working on projects. They can go in many different directions. They could try to tackle many different projects, but I'm assuming that we can't tackle all projects at the same time—resources are always limited. I'm wondering, where do they get meaningful input from to determine where they're going to prioritize their efforts?

Dr. Siddika Mithani: Our input really comes from our stakeholders. Basically, the GF2 consultations really provided us an opportunity to look at sectors and commodities and what their priorities were. Also, recognizing that stream A is more upstream in the high-risk and the long-term kind of science that we need to do, that has been the focus. So our priorities and what is funded, a very rigorous peer review process, management review, and so on really identifies the areas that have been identified by our stakeholders as priorities. So that's the stream A, which really focuses on priorities that have come from stakeholders.

There's also some funding that is for management-initiated research. For example, we had an issue with honeybees. We've now launched a project on some of the long-term effects on survival and factors influencing honeybees, as management-initiated. As you have emerging issues coming within the year, there is the possibility of also looking at emerging issues, as well as looking at industryrelated priorities that have been identified. Then the stream B really takes the stream A further; it asks, when you look at a cluster, what are the issues of concern? That's when scientists within the department, the private sector, will sit down and talk about a cluster that will look at various themes that really need to be addressed. Then those projects will be put together in a cluster. This is what really enhances the partnership aspect and the collaboration aspect that is so very important. It's about the research that's being done; it doesn't really focus on who does the research but on the fact that you are meeting and fulfilling the needs of the sector.

The Chair: Thank you, Mr. Lemieux.

Now we'll go to Mr. Eyking for five minutes, please.

Hon. Mark Eyking (Sydney-Victoria, Lib.): Thank you, Chair.

Thank you for coming today.

I'm just looking at some graphs here. There's one here about spending, with a peak of around \$500 million spending on research around 2006, but then it drops drastically and starts coming back up. There's quite a gap there of research funding from governments. Then there's another graph here that shows the private sector is really filling the gap and stepping up to the plate. They've gone up about \$70 million to \$80 million more in the last couple of years. It seems like the private sector is filling in the gap. But it also seems to correlate that it's important that the federal government put their share in, in order to trigger the other partners.

Is that very key to a lot of the private sector investment? They seem to be doing the big increase, and not governments. But is it very important that the federal part is there in order for the private sector to step up to the plate?

Dr. Siddika Mithani: I think it's important to recognize the fact that the innovation spending for Growing Forward 1, the earlier Growing Forward, was \$500 million. With GF2, it's up to about \$700 million. It's about being able—

Hon. Mark Eyking: Do you have the same graph that I have here? If you look at 2006 to 2010, I guess, there are three or four years here where there was a big drop. So now we're saying, going forward, it's going back up. But there was a big drop there in those years, wasn't there?

Do you have the same graph that we have in front of us?

Mr. Gilles Saindon: No, we don't have that.

Hon. Mark Eyking: It's called "Government Research Expenditures on Agriculture and Agri-Food".

Mr. Gilles Saindon: No, we don't have that graph.

Hon. Mark Eyking: If you don't have it, I guess it's hard for you to comment on it. So maybe I'll leave that.

I'm going to follow up on the question from the NDP on the research stations.

Over the last seven to eight years, how many have been closed across the country, and what levels are their operating funds at? Are they flatlining, or have they increased overall for the research stations?

Dr. Siddika Mithani: Let me start by saying that some of the research stations that were closed were the offices that had been

doing some outreach. What we had done as a result of transformation was to consolidate those offices.

As I mentioned when I talked about the creation of the science and technology branch, which really came from the merger of the research branch and the agri-environmental services branch, putting all the science under one umbrella provided us the opportunity to look at the whole continuum of science, research development, and technology transfer all together.

• (1600)

Hon. Mark Eyking: That's fine, but my question was how many research stations were closed across the country.

Mr. Gilles Saindon: In terms of that, while we didn't close any research centre, like where we have our large...we had the closure in the area of Winnipeg; the program has been transferred—

Hon. Mark Eyking: You consolidated them.

Mr. Gilles Saindon: —to Morden, using our modern facilities at Morden and Brandon, basically. But the program did not change. We had a few farms that were closed across the country, but they were part of the satellite farms linked to a station.

Hon. Mark Eyking: As well, you mentioned that you have nine, I think, commodity clusters that you're funding. One of the biggest claims we've seen in the agriculture committee and from many stakeholders is that value added is very key for our agriculture industry. Besides that, of course, it's very important how well we do on the farm, but value added is going to drive our industry, whether we're dealing with the European trade agreement or trying to sell more products to the United States.

How much in your research is on value added, and in which research stations is the focus on value added? I see the clusters here, but I'm thinking of the value-added part. How do you deal with the value-added sector?

Mr. Gilles Saindon: In terms of the value added, we have two centres that focus in the area of food research—i.e., transforming the material into food products. Those two centres are Guelph and Saint-Hyacinthe.

A number of the clusters have elements of value added; they tend to cover the entire chain, because they focus on markets, on market demands and all of that. Much of the material, of course, has to be transformed in order to meet market demand. A number of clusters will have that component. It may not be sliced out as a cluster that will have all the value-added of various commodities; they tend to be built in.

Hon. Mark Eyking: Can you give me an example? If those two research stations—

The Chair: You're almost out of time.

Hon. Mark Eyking: Do they partner up with Maple Leaf Foods and such companies? How does it work?

Mr. Gilles Saindon: We may have a partnership with industries that are in the manufacturing of food products. They may then have an element deployed partly at Saint-Hyacinthe through which they may be adding value to pulse crops, for example. We have some of that as part of the continuum, because when you produce, you have to make sure that the production gets to the market in the right shape and format required by industry.

The Chair: Thank you very much, Mr. Eyking.

We'll now go to Mr. Dreeshen for five minutes, please.

Mr. Earl Dreeshen (Red Deer, CPC): Thank you, Mr. Chair.

Thank you, witnesses, for being here today.

It's great to be able to talk about innovation. I'm from Red Deer, and Red Deer Agri-trade is probably one of the more amazing types of trade shows. It has all types of innovators; they come internationally, as well, to look at what is there.

When you consider that we're trying to look internationally in scope—we are looking at advanced genomics, biotechnology advancement as far as equipment is concerned in the farms—I think it's something that kind of shows where things are going in agriculture. These are great opportunities to look at this collaboration required. We look at universities and colleges such as Olds College in central Alberta as well as a lot of universities in Saskatchewan and so on that have gone and had agreements with other countries. I had an opportunity to be in China when Mongolia and the University of Saskatoon signed some agreements, so we can see that this research is going internationally.

You've talked about some of the real important issues we have, such as Ug99 and the wheat rust issue, and you also talked about the Western Grains Research Foundation. They're trying to look at higher-yielding wheat varieties and also at those that are more resistant to disease and pests, but we have to work at this at an international level as well.

Could you talk a little bit about that? In that discussion, I know that as was mentioned earlier, you have the nine agriscience clusters and the 14, I believe you said, industry-led initiatives that are there, and we're trying to find people we should be talking to. I wonder if you can talk about some of these groups that might be places where we would want to focus in our discussions on innovation.

• (1605)

Dr. Siddika Mithani: Let me start by talking a little bit about wheat and some of the international work we do within wheat.

As I mentioned in my opening remarks, the Canadian Wheat Alliance is clearly Canadian with Canadian partners, but we as a group are also attached to and work with the international Wheat Initiative, which is really a global initiative that looks at productivity, at diseases, at how we help third world countries. Through that, there is also another international organization that was just formed, about a month ago, called the International Wheat Yield Partnership. We, in Canada, are working with them through the Canadian Wheat Alliance. We are working there as Canada the country rather than Canada as the federal or provincial government. There are many such examples where we have joined forces in moving forward internationally in these types of arenas. When you look at the global strategic agenda for wheat, it's very important in that it talks about many issues that not only the third world countries are dealing with but also some of the issues that Canada deals with—for example, water management, resource efficiency use, water and nutrient use efficiencies, climate change, some environmental issues, fertilization, and fertilizers. This allows, again, for us as a country to look at how we avoid duplication in science and research so that we are able to leverage not only nationally but also internationally.

Mr. Earl Dreeshen: Thank you.

The other issue you had mentioned are these three points, one of which was enabling commercialization. Again, there are many great ideas and many opportunities, and no doubt a great amount of research that has been, perhaps, left on the shelf sometimes, that haven't had an opportunity to be brought to commercialization for whatever reasons.

Could we discuss the potentials surrounding IP protection for those working within the sector and through all the programs that we have? What are we looking at in that regard? Is somebody kind of looking after that side of it or helping direct where different businesses should go in order to be able to maximize that commercialization?

Mr. Gilles Saindon: In terms of our own material, the bulk of our commercialization in the department comes from crop varieties, for which we have a clear system. We have some protections for the varieties in the country and we go through a request for proposal, asking people to bid on the varieties. That's well organized. I think it's working. We do it annually. That's our clear path.

Frankly, I think it's the bulk of our own technology transfer where we do the commercialization. Now that we're doing most of the research, a lot of it as part of a cluster, the industry leadership comes in and plays a big role in advancing and finding these opportunities, and they're players at the table. They in fact help guide some of the decisions on the particular traits to look at for market opportunities. I think the biggest asset you could have is good knowledge of exactly what the market wants and come up with the right product at the right time in the right place. I think it's very important. I think the clusters give us a chance to do that.

The Chair: Thank you very much, Mr. Dreeshen.

Madam Brosseau, you have five minutes, please.

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

I'd like to thank the witnesses.

I want to go back and touch on a question that I think my opposition colleagues mentioned.

Right now we have 19 research centres, is that right? When my colleague asked about some of them closing, you said that a few were consolidated, or moved elsewhere.

AGRI-25

I got a press release a few days ago about the cereal research centre. What kind of work did the cereal research centre do?

• (1610)

Mr. Gilles Saindon: The centre works mostly in the areas of cereal breeding, pathology, genomics, as well as entomology and some value-added in the area of food production, cereal-based mostly.

Ms. Ruth Ellen Brosseau: In this press release, it says that later this month the cereal research centre will be closed. What will happen to the people who worked there?

Mr. Gilles Saindon: Just to touch base a bit on that, the physical facility in Winnipeg is closed and our staff has moved. But as I mentioned earlier, the programs have not been closed. The programs are being consolidated at Morden, which is an hour and a half south of Winnipeg, and a group has also gone to Brandon, where we consolidated a lot of the breeding activities.

In Morden we do the pathology, some of the genomics, and the insect controls, and we would do that field work, and agronomy. The breeding is being done at Brandon, where we also do barley breeding. But it's focused on wheat.

Ms. Ruth Ellen Brosseau: Then the work that was started by certain people will continue on until it's finished?

Mr. Gilles Saindon: That's correct. They are continuing on site there. Some of the staff decided not to relocate, and so we're staffing positions right now in the area of wheat breeding. In fact, I think they're staffing as we speak.

Ms. Ruth Ellen Brosseau: It goes on to say in this press release:

When the federal government invests \$30 million annually in wheat breeding it creates at least \$600 million in value that is distributed among farmers in the form of better crops, providing income to pay wages, taxes....

Madam Mithani, you spoke a little bit about international collaboration. Can you comment a little bit more on how that works and how Canada compares in investing in research and innovation?

Dr. Siddika Mithani: I'd first like to go back to your question with respect the CRC, just to let you know that we are currently hiring two spring wheat breeders, one durum wheat breeder in Swift Current, and two pathology positions to be staffed in Morden. The long tradition of wheat work in CRC that was done in Winnipeg is not lost. It will still continue. It's also important to recognize that we do have scientists who are embedded at the University of Manitoba.

When you look at wheat research, we compare very well with the international Wheat Initiative. We are one of the very strong members of the international Wheat Initiative. At a science level, it is about science, about research, about being able to share germ plasm and be able to work together to come up with varieties that will increase productivity.

Ms. Ruth Ellen Brosseau: You also mentioned honeybees and work being done that is management-initiated, I guess because of the concerns over the last few years regarding the decline in honeybee populations. I was wondering if you could comment a little bit more on that initiative, because we've actually had witnesses come to this committee, and there's been a lot of work done in the Senate committee also.

Could you follow that up and update the committee on what's being done?

Dr. Siddika Mithani: Sure: there are two aspects to this. The issue of neonicotinoids and bees is a PMRA, or Pest Management Regulatory Agency, issue. This is an acute issue, something that is dealt with through regulatory mitigation measures that PMRA is putting in.

The kind of work we are doing is more long term. It's important to recognize that pesticides are just one of many factors that influence survival. There are nutrition and culture, which means the way you manage them and transport them. There are pathogens prevalent in bees as well. There are environmental factors. The quality of the queen is also important.

Some of the work we are doing is really looking at the interaction of these influencing effects in the long-term survival of bees. We're also looking at molecular tools as we look at how we can improve the survival of these bees. So the work currently being done at AAFC is really focused on the long-term issues with bee survival.

• (1615)

The Chair: Thank you very much.

We'll now go to Mr. Payne for five minutes, please.

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

Thanks to the witnesses for coming today.

Certainly we know that research is an extremely important aspect of our agriculture. Certainly the innovation program contains science clusters, and you did talk a bit about your stakeholders. I'm just wondering if you have some comments on what they think about the clusters and the research and what their views are in terms of what's going on with the innovation and research.

Mr. Gilles Saindon: We receive a lot of ongoing feedback, because there is a lot of interaction with our scientists. Not only do we fund some of these clusters but we also participate, in many cases, in the delivery of these clusters. We're part of the scientific team. We're not always part of it, but very often we are. In these cases, we have lots of interaction on an ongoing basis with the players in terms of adjusting and comparing notes as to where we are and how the research is progressing.

So there is a lot of back and forth at the management level, so to speak, and also among the scientists. We're putting together teams of scientists, some from the private sector, some from the university, and some from the department. It gives them a chance to interact. They have regular annual updates on what they will go and present. They share their results, discuss, and adjust as needed, because it's also part of the feedback we get. The feedback we're receiving from industry has been very positive in terms of providing the right context for these discussions to take place.

That's basically what I would say about this.

Mr. LaVar Payne: I talked to you earlier, and you were in Lethbridge, where there is one of the research centres. Of course, as we had discussed, that is my hometown. We both have children who were born in Lethbridge, so we have some real history in that part of the country.

I think one of the examples you have at the research centre is on vaccines, and it was critical in developing the vaccines to fight ticks and paralysis in cattle. Can you go into more detail on this particular innovation project?

Mr. Gilles Saindon: In reference to bluetongue at the border, I'm not sure to what extent we were involved in developing the vaccine. We probably collaborated in the science underpinning it and understanding what would be needed to provide a good vaccine. I don't know where the work was actually done, but our scientist was an entomologist who participated in this because he knew the biology.

That's a great example of what happens when you bring together a team. We had the strength in the biology, understanding the insects and how the insects would move and how the virus or pathogen would also move from cattle to cattle. I think that was brought to bear in the context of developing the vaccine. So it would be in that context that we participated in that project.

Mr. LaVar Payne: Well, that sounds quite positive.

Have you any other innovative research projects that are taking place in Lethbridge that benefit western Canadian farmers?

Mr. Gilles Saindon: This is where we focus the majority of our work, in the area of feedlot beef cattle production. This is where we do that research. There is a lot happening in this particular area. We're working in the area of some cereals, as well as some pulses, which are being developed there on the crop side.

In terms of a lot of the work that's been done over the years and that we've seen fruition in, one example is the area of minimum tillage. A lot of that tillage work was also done at Lethbridge. Now they're working in terms of integrating the impact on the environment and looking at the life cycle of carbons and nitrogen to see how it works in terms of greenhouse gas production and linking it with the cattle production.

That's the kind of innovative work we do, and that is linked internationally as well. You have the opportunity, under one roof, to have the interaction between the livestock production and the impact on soils. You have the feed as well, because we have forage work there. That gives us the integration.

• (1620)

Mr. LaVar Payne: You're very close to "feedlot alley", I think they call it. One of the other—

The Chair: We are out of time.

Mr. LaVar Payne: I had only one more question, Mr. Chair.

The Chair: We may get some more time. Thank you.

Madame Michaud, you have five minutes, please.

[Translation]

Ms. Élaine Michaud (Portneuf—Jacques-Cartier, NDP): Thank you, Mr. Chair. I very much appreciated your presentation. This is my first time on the Standing Committee on Agriculture and Agri-Food. I usually sit on the national defence committee, but I am learning a lot of interesting things.

My riding, Portneuf—Jacques-Cartier, is a rural one. It is home to a number of research farms, including one belonging to Université Laval in Saint-Augustin-de-Desmaures. So I'm interested in the issue. I'm glad my colleagues raised the matter of research farms. You covered the topic quite well.

Now, in its 2014-15 Report on Plans and Priorities, the department is allocating \$519 million to science, innovation, adoption and sustainability programs. How much of that money will go to research activities conducted within Agriculture and Agri-Food Canada?

Mr. Gilles Saindon: The new fiscal year just started. The department's budget for the fiscal year that just ended was just over \$300 million; that includes what we do internally and what we fund through the AgriInnovation program. So it's a shared budget, if you will.

Ms. Élaine Michaud: Will the amount be the same? Do you have an idea of the percentage that will be put towards that type of activity? The 2014-15 Report on Plans and Priorities has already come out. Does the department know yet how much of that funding it intends to allocate to innovation research? Would it be similar to the amounts in previous years?

Mr. Gilles Saindon: It will be in the same ballpark, but I can't say exactly how much.

Ms. Élaine Michaud: It will be more or less the same?

Mr. Gilles Saindon: In the same range, yes.

Ms. Élaine Michaud: Thank you, that answers my question.

In the 2014-15 Report on Plans and Priorities, the department indicates that

AAFC will continue to work with industry to develop and refine a strategic direction and framework to focus and guide future research activities aimed at helping industry to capture opportunities. The emphasis will be on common, cross-cutting strategic objectives

How do you decide on those objectives? How do you work with industry? Could you elaborate a bit on how that collaboration will be achieved and how priorities will be identified?

Mr. Gilles Saindon: We consult with industry, which calls the shots in terms of priorities to make sure they are aligned with its needs as far as the market, commercialization, production costs and so forth go. So that really guides the process. Our role is to figure out how we can help industry from a scientific standpoint, so it can do the best possible job of meeting the challenges associated with those key issues of concern.

Ms. Élaine Michaud: If I understand correctly, industry determines the issues or concerns it has, and then, your department tailors its efforts around industry's needs.

Mr. Gilles Saindon: It's a dialogue between both partners. We have knowledge when it comes to research, efforts undertaken internationally, important issues and approaches other countries and stakeholders are using. So all of that factors into the process.

It's a discussion, a dialogue between both sides. Then, we find the right balance that enables us to—

Ms. Élaine Michaud: Is there a consultation afterwards? Do you provide a list to key players in industry?

Mr. Gilles Saindon: We use consultations to develop projects, such as science cluster projects. Then the plan is submitted to the department for funding.

Ms. Élaine Michaud: Thank you.

I want to pick up on something my colleague, Mr. Lemieux, mentioned earlier. It had to do with giving our producers greater access to the European market, in particular. The European Union is known to have many more restrictions on GMOs, the use of antibiotics and growth hormones, and so forth. In Canada, our standards are a bit different.

If our producers are to truly benefit from greater access to markets like the EU's, they will have to find new ways of producing just as much and getting the same results they do now using methods that aren't necessarily compatible with the European market.

Has the private sector brought that to your attention as a priority? I am curious as to how innovation and Agriculture and Agri-Food Canada's programs could help our producers in this situation. Could you please elaborate on that?

• (1625)

Mr. Gilles Saindon: I can give you an example. You mentioned antibiotics and the different tolerance levels. One of our research projects under stream A, the first project stream, is all about alternatives to antibiotics. We're conducting research within the department to find ways of reducing the use of antibiotics in livestock production, to come up with alternative methods of controlling disease.

Ms. Élaine Michaud: Forgive me for cutting you off, but I don't have much time.

[English]

The Chair: We're way over time. I'm just trying to allow some leniency to get answers in. Thank you very much.

I have to commend members for putting out a number of questions and hoping to get the answers, but we are trying to stay within a bit of a guideline.

Mr. Zimmer, five minutes, please.

Mr. Bob Zimmer (Prince George—Peace River, CPC): Thank you.

I'm going to share my time with my colleague, if there's time. I'll probably only have a few questions.

Thanks for coming to committee today.

I spoke with a scientist within the department about a month ago, and he was under the perception that R and I, or research and innovation, was being cut within the department. I quickly talked to some staffers that I know, and some people within the ministry, and it's quite the opposite, actually. I mean, there was a time when there were some cuts made, but that was a long time ago. I'd say it was in 2008 and 2009. I have the stats here. Do you have the stats in front of you on how much the increases in R and I have been over the last five years?

Mr. Gilles Saindon: No, we don't have those stats with us.

Mr. Bob Zimmer: I have, in 2009-10, that \$266 million was spent. From 2010-11, \$287.6 million was spent. From 2011-12, \$283.8 million was spent. Then in 2012-13, \$347 million was spent. To me, they're notable increases.

Certainly one thing we heard from farmers when they came to us, with the rounds of DRAP, with trying to get the government back to budget, back to balance, was to not cut research and innovation funding, and we didn't. Obviously, by the numbers, we've actually increased it demonstrably.

Within your department, what have you seen? You've talked about some of the things you're involved with. Have you seen money getting spent on a more broad level to fund R and I, and R and D? That's a pretty broad question, but a short answer would be fine.

Dr. Siddika Mithani: That's a very difficult question. However, I can tell you where we are evolving to. AAFC is the single biggest player in the agricultural research arena, and it continues to be. One of our strengths is how we mobilize our research network to be able to do the kind of work we do.

What we've seen in the last five years is a lot more partnership. With partnership and collaboration really comes the issue of how we fulfill the needs of the sector. Whereas before you may have seen projects that were very upstream, now the projects are a lot more targeted to the needs of the sector. That helps them both from a market push and a market pull, and it also helps them internationally, in terms of the competitiveness.

Mr. Bob Zimmer: I think that's exactly what our farmers are saying too. It's one thing to have research and innovation, but it has to be applicable—something they can actually use in their fields. I think that's exactly the direction we're going.

Mr. Gilles Saindon: Yes, I think that's exactly the point. It's important that we do the full continuum—R, D, and T. So you do the research, you do the scale-up, you do the technology transfer, and it gets into the hands of the producers and the access markets, or the access.... They produce cheaper, or they have an attribute they didn't have before that they can market abroad. I think it's all about that. You have to make sure that you have your full continuum.

We recognize that we're not the only player. There are many other players involved, and that's why, with clusters, it gives us a chance for the private sector—industry as a whole, because the private sector is producer organizations as well—to do the technology transfer, and they're well equipped to do that.

• (1630)

Mr. Bob Zimmer: That's perfect. Thank you.

Go ahead, Mr. Payne.

The Chair: You can share a minute.

Mr. LaVar Payne: Okay, that's perfect. I only need one minute. Thank you, Mr. Chair.

Thank you to my colleague.

I just wanted to touch a bit on the commercialization that some of my colleagues have talked about. I'm wondering if you have an example of something that was done either in Lethbridge or some other research facility, that is going to come to commercialization, and that potentially could be a world leader in research and development.

Dr. Siddika Mithani: We have one example here. The AC Emerson, western Canada's first winter wheat to be rated resistant to fusarium head blight, was developed by AAFC scientists in Lethbridge. This year we will have the first winter wheat that will be resistant to fusarium head blight, and this is a huge success story from our perspective, especially in wheat.

Mr. LaVar Payne: That will be a bit of a world leader for us, I take it.

Dr. Siddika Mithani: Yes.

Mr. LaVar Payne: That's awesome. Thank you very much.

The Chair: Thank you, Mr. Payne.

Now we will go to Mr. Hoback for five minutes.

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

Thank you, witnesses, for being here.

I'm just kind of curious; you talked about \$97 million over five years. How do you accommodate projects that take more than five years? Some projects might be two years, and some projects might be seven or eight years. How do you accommodate that? How do you juggle all that and make it work?

Dr. Siddika Mithani: Right now the Canadian Wheat Alliance is a five-year, \$97-million initiative, but it's really an eleven-year initiative. The \$97 million has been committed over five years in terms of contributions right now, so we hope we will continue. I was just at the meeting of the scientists a couple of days ago in Saskatoon, and the kind of complementarity is amazing when you bring Canadian scientists together, having a very similar goal to move toward, bringing all resources together, and being able to leverage the science and research.

Mr. Randy Hoback: Go ahead, Mr. Saindon.

Mr. Gilles Saindon: If I may, we have the same approach with our internal research and whatever research we do. Everything is done as projects with a timeline of about three or four years and all that. But I think what's important is that the scientists keep track of the general direction, and I think they build and try to design a project that will have their answers and a go or no-go type of gate point for the next step; then they will design the next project.

So they're kind of used to having these cycles. It's pretty rare that you get 20-year funding. We just look at four years, or three years, decide whether it's go or no-go; and you have to adjust and carve it a little bit, modify it, get more people involved, maybe, or go in a different direction. And biology gives you surprises too; so you think you have a straight line, but you have a big curve all of a sudden. Biology will do that to you all the time.

Mr. Randy Hoback: I guess that leads into my next question. You've got different clusters going on, and you've got some clusters that all of a sudden require a lot of research because maybe something's come up—a new disease, a new insect—so all of a sudden you need more money for that cluster. Then you've got another cluster where everything's moving along tickety-boo, just doing general research.

Are you able to take money from one cluster and move it to another one as the need requires? Do you have that flexibility? If you have a cluster that says it's one year away from something big and asks if it can continue on for one more year with extra funding, do you have that kind of flexibility to say, yes, it's a good project, and find the funds to do that by juggling things among the clusters?

Mr. Gilles Saindon: In terms of the clusters, they're handled by the program branch, so they have the mechanism to make adjustments if they have to. They report annually, and I think there might be a chance to at least ask and see if there is opportunity to adjust the course of action. I think in their annual report they probably have those discussions, and there might be opportunities.

For the research we do internally, outside clusters, we do that all the time; we adjust. That's part of our project renewal process when we recycle projects; we come back and the scope may be quite different the second time around. It depends on where they are in the life cycle of the solution they're coming through.

• (1635)

Mr. Randy Hoback: You have these clusters again. How do you prevent them from becoming silos, where they don't talk to each other, where they just stay in their own little world and don't share the knowledge and research that can be cross-shared in some cases? There might be new technologies that they're using to do the research and stuff like that.

Mr. Gilles Saindon: That's an interesting question, because I think we're seeing the opposite. They tend to be comprehensive and broad because their basis is large. You have some industries that are companies, but you also have industries that are producer organizations that are part of that cluster, and they have interesting views, and at times different views as well, or complementary views. They will bring things together.

I will give you an example from this year with the beef cluster. For the longest time, we had problems with who was going to pay for forage work and who was going to do it. It's hard to find a constituent who will come and say, "Forage is important. We've got to put money into it." But the user, like the beef producer, and in dairy, as a matter of fact, both the dairy and the beef cluster did the same thing—they introduced a component in their research that was forage-related. So in fact the silos are being destroyed, not created, with these things.

Mr. Randy Hoback: That's good to hear.

I'm good there, Chair.

The Chair: Thank you very much.

Now we'll go to Mr. Lemieux, please, for five minutes.

Mr. Pierre Lemieux: Thank you, Chair.

I'd like to follow up on commercialization. In the past, I've sensed that there has not been a government focus on commercialization. It's been more on the research or perhaps the innovation. The actual commercialization of a technology has not received as much government support. Of course that's the higher-risk phase; of taking something and actually marketing it. The results of any particular research or innovation may not be marketable in that form, so sometimes there is some finessing to be done to actually get it to the farm gate to benefit farmers, or not only farmers but perhaps the agrifood processing chain, for example, which also exports to other countries.

Could you inform the committee about the commercialization aspect of the AgriInnovation program? What is the main thrust behind it? Perhaps you have an example or two that would help give committee members a concrete idea of how something is commercialized and how government might support that effort through the AIP.

Dr. Siddika Mithani: Let me start with some of the whole knowledge transfer aspects of the science and technology branch.

I mentioned that in 2012 we merged the PFRA, or the AESB, with the research branch. We had two branches where, in AESB, we had a specific element of what was called "knowledge transfer individuals" who actually went out and did sort of individual knowledge transfer activity. By bringing these together, we have been able to give integrated advice about some of the technologies we develop within our organization.

Now, within the science and technology branch, as we look at new projects, we're also looking at the fact that when you get to the development stage, you need a knowledge transfer element in that, so that there is a mechanism by which you know that this needs to either transfer to the provinces, to the private sector: how you are going to do that?

So within our own science and technology branch continuum, we now have a mechanism in place within the organization that says that doing science, finding research results, and then shelving them is not what we want. It needs to take us through, totally, towards the other side.

Mr. Pierre Lemieux: So an example that you might be giving might be this: there is an output from the research stream, which is mostly government-led, and you're talking about transferring that information into the private sector or into the provincial government sector or into another sector that can take advantage of the commercialization.

• (1640)

Dr. Siddika Mithani: Right. For example, if you have identified a certain bioactive compound that is nutritional, you want to make sure that as you develop that particular compound, perhaps in food, you've looked at quality, and you have a mechanism to provide that information to the stakeholders that are interested. So you have a whole chain that starts from research development to tech transfer.

When you look at stream C, stream C is focused on industry commercialization, so a lot of that is not within the area of responsibility of the science and technology branch. We are generally responsible for the technology we produce, to make sure that it is taken outside. **Mr. Pierre Lemieux:** So is stream C, then, more focused, for example, on the output of perhaps a cluster or something like that

Dr. Siddika Mithani: Absolutely.

Mr. Pierre Lemieux: —where it's not necessarily government-led research; it's something that is actually probably more focused on a commercialized end product?

You're saying stream C, then, is a way to look at some of those outputs and say, actually, these three look promising, they look very commercializable, and we have some funding to help move that into commercialization so that it can be marketed and used by end users.

Dr. Siddika Mithani: Exactly.

Mr. Gilles Saindon: I would add, as an example, that the work we did was also at the end of the Growing Forward framework with the export market for food-grade soybeans to Japan. We had done some research to come up with the non-GMO food grade. It's done here in the Ottawa area, and it involves people in Prince Edward Island in the production.

So we came up with a product that was quite different in terms of feeding the market in Japan. Then there was some funding.... Again, I'm not sure I have all the words right for the terms of the program. There was a program in the department that we used and we mobilized to send a few...to scale up the thing, to produce more, and have containers. When you test-market you can't really test it with a research plot.... For instance, volume; you need volume, large volume. I think it was quite successful in testing the market and informing the next stage of science, because it's iterative.

So I think that was an example that was quite well received.

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

Now we'll go to Madam Brosseau for five minutes, please.

Ms. Ruth Ellen Brosseau: Thank you, Chair.

[Translation]

I'd like to follow up on something my colleague, Ms. Raynault, touched on when she mentioned the closing of the research farm in Saint-Joseph-de-Kent. I know you can't comment on decisions the government makes, but I want to point something out. When the research farm closed, eight full-time employees, four seasonal workers and around seven students during the summer lost their jobs. Those job cuts and changes have an impact on our capacity to innovate and really support producers. Could you comment briefly on the work the research farm did and its mandate?

Mr. Gilles Saindon: The Saint-Joseph-de-Kent farm focused primarily on berries, tree fruit and some vegetable crops. It affects our expertise given that we work as part of a network. An experimental farm or a research centre is located in one specific spot, but our strength lies in the ability to harness the entire work. We definitely have methods to work in those areas in Kentville, Nova Scotia, where a large proportion of our people do indeed work in orchards. Many of those efforts were consolidated, and we've been able to use our critical mass in Kentville to help the people there as well. That means, then, that the impact of our research isn't limited to the immediate local area, but that it extends region-wide and often country-wide. So a great many things are happening, as is the case with vegetable crops. Very often, what's being done in Saint-Jeansur-Richelieu can be fully applied to or used in New Brunswick as well. That's what a network-based approach using our critical mass can do.

Ms. Ruth Ellen Brosseau: You're saying there's another research centre and there are other places that will continue to conduct research on tree fruit and berries.

• (1645)

Mr. Gilles Saindon: Exactly.

Ms. Ruth Ellen Brosseau: Those people lost their jobs, but the work is still being done elsewhere. How many places will keep up this research?

Mr. Gilles Saindon: Do you mean on tree fruit?

Ms. Ruth Ellen Brosseau: Yes.

Mr. Gilles Saindon: We still have Kentville, in Nova Scotia, and Summerland, in British Columbia. The genetic material is kept in Harrow, Ontario.

Ms. Ruth Ellen Brosseau: How many projects were approved under the AgriInnovation program?

Mr. Gilles Saindon: Nine clusters were involved, and I'm just going to check the number of projects so I don't give you the wrong information. There were 9 clusters and 14 projects.

Ms. Ruth Ellen Brosseau: Could we get a list of the approved projects?

Mr. Gilles Saindon: We could certainly provide that for you.

Ms. Ruth Ellen Brosseau: Earlier, I asked about international collaboration. Which countries do we collaborate with the most when it comes to sharing information on innovation and research?

Mr. Gilles Saindon: The United States is our biggest partner as far as international science collaboration goes, given its proximity and its highly developed capacity.

We also engage in a good amount of collaboration with Europe, especially France, which has some really powerful agencies.

We also do a lot of work with emerging countries like China.

Ms. Ruth Ellen Brosseau: That's all. Thank you.

[English]

The Chair: Go ahead, if you have one short question.

[Translation]

Ms. Élaine Michaud: I may have time to come back to this later, but could you describe for us some innovative projects and research happening in organic farming right now?

Mr. Gilles Saindon: Some organic farming projects are under way around the country, especially in the area of horticultural production. I can't name them off the top of my head, but most of them involve horticulture. Sometimes, we contribute to projects. We've taken part in organic wheat projects. We've had involvement in that area. We didn't do the work—

Ms. Élaine Michaud: I apologize for interrupting. Who led the work?

Mr. Gilles Saindon: A researcher at the University of Manitoba, in Winnipeg.

Ms. Élaine Michaud: It was a joint project with a university.

Mr. Gilles Saindon: That is possible in some situations. The first version of Growing Forward: Toward a New Agriculture Policy Framework included a science cluster focused on organic farming. I don't have the details with me, but we worked on that for the five years of the first policy framework.

Ms. Élaine Michaud: Are those projects-

[English]

The Chair: I'm sorry, we're well over the time.

[Translation]

Ms. Élaine Michaud: Thank you.

[English]

The Chair: Folks, I want to take a bit of a prerogative as chair. I have a couple of questions that I wouldn't mind putting to the department, please.

This is just a follow-up. I want to say thank you for talking about not only the local and the regional, but the importance and significance you see in research, innovation, development, and then the commercialization of it.

When you consolidate—and this goes back to some of the earlier questions that may have come up—is there a concern about how to deal with issues around regional geography, for example around pest control, different soil types, different climate in different areas? Is that accommodated, or are the regional areas seen within the context of the same geography, as far as the soil, climate, and pests that would be present are concerned?

It may be not only in wheat, but in the horticulture areas, and also in some respects as we move into the grains and oilseeds and the research that is sponsored from these—obviously as part of a cluster that comes together with our grains and oilseeds people....

How does that work, or how does it come together so that there isn't a lack in the information that would be developed within regions where the consolidation has happened?

Dr. Siddika Mithani: Let me start by talking a little bit about consolidation.

When we looked at consolidation and at where we had streamlined, it was only where the sector had the capacity to be supported and there were partners there to support the sector. We got out of programs only in areas for which we knew there was capacity out there. So it isn't that, once a particular area closes down or the work is moved to another area, the work is not done; there is capacity there.

We have moved out of areas for which there already exists some capacity outside. It's the whole premise that everything does not have to be done by the government. The government has a role in long-term research in being able to have the strength to bring the research network together and to be able to do the research that is necessary to support the sector as needed.

I would say that consolidation has really allowed us to be more collaborative externally with our partners, whether they be private industry, academia, or institutions, etc.

• (1650)

The Chair: Thank you very much for that.

It sort of leads into my second question. We've talked a lot today about wheat and the research in wheat. But most of that is in western Canada. For example, I'm from Ontario, and in Ontario we grew about 950,000 acres of wheat last year.

So it might not be the large acres, but the significance of it in terms of our farmers and in terms of soil, the rotation, feed supply, and the supply chain is likely just as significant to the farmers in central and eastern Canada as it is to the west. That's why I think the research is so important across Canada.

We haven't really had a lot of discussion about the research for those products. I can talk about soybeans and the soybean 20/20. There's a lot of research that has gone in to avail itself to different products in terms of oil that comes from soybeans, but maybe you could touch on the research of wheat, particularly around Ontario, which is one of the larger growing areas. **Mr. Gilles Saindon:** It's a very good point, because with the launch of the new clusters led by the Western Grains Research Foundation, we managed this time to have the entire country under one umbrella. Before we had the group in Ontario, and in Quebec

[Translation]

the Fédération des producteurs de cultures commerciales du Québec.

[English]

They were kind of separate and they had kind of a mini wheat focus on that. With the Growing Forward 2, with the clusters in wheat, we managed to have all of this under one umbrella.

The point is that they are now able to mobilize all that capacity and infrastructure that we have in western Canada with the University of Saskatchewan and put that together with the University of Guelph and people in the province of Quebec as well, at CÉROM. They basically have something that is more comprehensive. Leveraging all that research in western Canada, and with the research in eastern Canada...because it's all wheat.

At the end, we have to change some specificity—one is winter, the other one is spring—so that you have it...but I think you could exchange that more freely. I think the leveraging of that is probably the biggest accomplishment, and that's very useful and very precious for the people in Ontario.

The Chair: Thank you very much.

I want to say thank you to our witnesses. We've finished it off in round three. We're getting close to 4:55 p.m. I think we've had a good discussion.

I thank the witnesses for coming forward.

Members, thank you very much. See you on Monday.

The meeting is adjourned.

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