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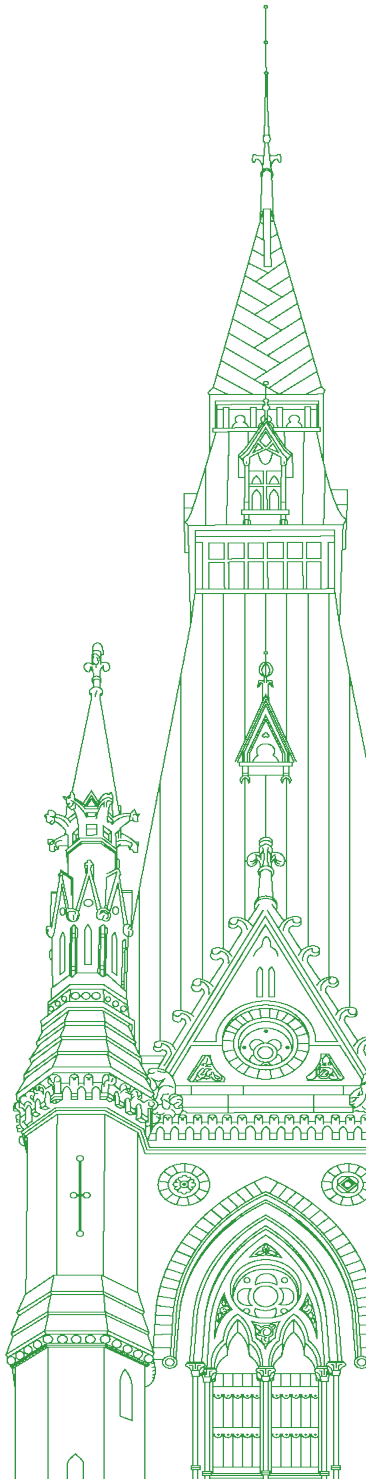

Chair: Mr. Kody Blois

Standing Committee on Agriculture and Agri-Food

Thursday, March 31, 2022

● (1540)

[*Translation*]

The Chair (Mr. Kody Blois (Kings—Hants, Lib.)): I call this meeting to order.

Welcome to meeting number 12 of the Standing Committee on Agriculture and Agri-Food.

I will start things off with a few rules.

Today's meeting is taking place in a hybrid format pursuant to the House order of November 25, 2021. The proceedings will be made available via the House of Commons website. Just so that you are aware, the webcast will always show the person speaking rather than the entire committee. Please note that screenshots or taking photos of your screen is not permitted.

[*English*]

To the members of Parliament in the room, I can't watch you, but my trusty clerk will keep an eye to ensure you're following the spirit of the rules from the Board of Internal Economy. Thank you to everyone.

Pursuant to Standing Order 108(2) and the motion adopted by the committee on Monday, January 31, 2022, the committee is resuming its study of the agriculture and agri-food supply chain.

Just before we get to our witnesses, members, I need to ask you a couple of questions. The first is on the adoption of the budget for the study of the environmental contribution of agriculture. You've all received it by email. It covers costs related to our meetings. Do I have agreement?

Seeing no issue, we'll say that's in agreement.

We also had a small technical glitch at our last meeting with CropLife Canada's opening remarks by Dr. Justine Taylor. To ensure that we capture these remarks, I propose the following:

> That the speaking notes presented by Justine Taylor, Director, Stewardship and Sustainability of CropLife Canada, be taken as read and published as an appendix to the Evidence of Monday, March 28, 2022.

Again, it's just an administrative element where we lost connection. I don't foresee that being a problem, but can I get agreement on that?

An hon. member: Yes.

The Chair: Great. That's adopted.

Finally, I just have a reminder that recommendations should be submitted to our analyst today for inclusion in the first draft of our supply chain report. We would appreciate your co-operation in that domain.

I would like to welcome the witnesses for our first panel.

Joining us by video conference today from Fertilizer Canada, we have Karen Proud, who serves as the president and chief executive officer. We have Clyde Graham, executive vice-president. Welcome back, Mr. Graham.

[*Translation*]

Also with us is Benoit Pharand, CEO of Réseau végétal Québec.

Welcome, Mr. Pharand.

[*English*]

Ms. Proud, you will have just over five minutes for an opening remark and I'll give you a little bit of leeway. I'll turn the mike over to you.

[*Translation*]

Mrs. Karen Proud (President and Chief Executive Officer, Fertilizer Canada): Thank you very much, Mr. Chair.

Thank you for having us today.

My name is Karen Proud. I am the president and CEO of Fertilizer Canada. I am joined by my colleague Clyde Graham, who is executive vice-president of our organization.

[*English*]

Canada has a strong, diverse agricultural sector and the foundation of this sector is fertilizer. Fertilizer is an economic driver that contributes $23.6 billion annually and employs over 76,000 workers throughout the supply chain. We export to over 75 countries, contributing to agricultural industries around the globe.

We help feed the world. Without fertilizer, global food production would be cut in half.

● (1545)

[*Translation*]

Canada has a vibrant fertilizer industry, which is critically dependent on a safe, secure and reliable supply chain that gets our product to both domestic and international customers.

There are two primary nutrients produced in Canada—predominantly in the West—potash and nitrogen. Ninety-five per cent of Canadian potash is transported internationally through ports in British Columbia, and over 40% of nitrogen fertilizers manufactured in Canada are exported to the U.S. Phosphorus is not manufactured in Canada, and is imported from the U.S. and other jurisdictions including Morocco. Due to the large amount of tonnage being moved and concerns about safety, the fertilizer industry is reliant on railways to move goods. In fact, fertilizer is one of the largest commodities transported by rail in Canada.

[*English*]

For Canadian industry, the past two years have been characterized by frequent supply chain disruptions, including the COVID-19 pandemic, extreme weather, and blockades and labour disruptions leading to work stoppages.

Fertilizer Canada and our members have serious concerns with these supply chain disruptions and the impact they have on our international reputation as a reliable trading partner and on Canadian farmers.

[*Translation*]

This spring there have been serious issues impacting our industry—which occurred at a critical time of year. The first disruption was the Canadian Pacific work stoppage.

For farmers, purchasing and applying fertilizer is a highly time-sensitive process. During critical fertilizer application in the spring and fall, periods that largely determine the course of farmers' harvest, any delay or disruption to the supply chain can prevent farmers from accessing the essential products they need to grow food for Canada and the world.

Farmers already face challenges during these seasons due to variable weather and logistical concerns. Impeding farmers' ability to access fertilizer inputs will have long-term consequences in terms of costs to farmers, and harm domestic and international food security.

[*English*]

While the CP Railway work stoppage was only two days, our member companies felt the impact for several days prior and after, and were days away from curtailing production at their manufacturing and mining facilities before the strike was declared over. The impact of a work stoppage is felt long after it is resolved, and it takes time for the railways to ramp up back to full service. Shippers are facing significant backlogs.

This is the third work stoppage our members have dealt with since 2019. Our member companies operate in a global marketplace and need a transportation system that is not disrupted every two years. We are aware of several collective agreements expiring in 2022, and we cannot afford for these agreements to expire and another work stoppage to occur. The federal government needs to develop a long-term approach to fixing problems within the supply chain so that Canada can continue to be a reliable trading partner.

[*Translation*]

Prior to the work stoppage, the global fertilizer markets were tight due to an increased demand and a strained supply. The war in Ukraine and the sanctions placed on Russian product have further tightened supply.

Fertilizer Canada supports the actions of the Canadian government and is deeply concerned by the invasion of Ukraine and the impact on the Ukrainian people. The situation is having negative effects on the global economy and fertilizer is one of the commodities affected. Eastern Canada, which is highly dependent on Russian fertilizer imports, has been disproportionally affected by this spring seeding season.

● (1550)

[*English*]

Approximately 660,000 to 680,000 tonnes of nitrogen fertilizer are imported from Russia to eastern Canada annually, which represents between 85% and 90% of the total nitrogen fertilizer used in the region. When the sanctions and tariffs were first announced, our members estimated that between 30% and 40% of the fertilizer shipments to eastern Canada were either en route or pending shipment. Since that time, our members have worked diligently to secure product, and now have approximately 70% of product in place.

The fertilizer industry is committed to providing farmers in Canada and around the world with the crop nutrients they need to grow food; however, we need the government's support to develop long-term approaches and a regulatory environment that would allow our member companies to remain globally competitive, secure capital investments in Canada and remain an industry that employs a highly skilled Canadian labour force.

Thank you, Mr. Chair. I am going to stop there.

I apologize to your francophone colleagues. This is my first testimony *en français*, and I hope my pronunciation was not too bad.

The Chair: No. I think it came across wonderfully.

We have you, Mr. Graham and Mr. Pharand available for questions, and we're going to turn it over to questions now.

Colleagues, we'll get two rounds in and, perhaps, even a third, even if it's a bit truncated.

I'm going to start with the Conservative Party. I presume it's Mr. Barlow, but I'm not in the room.

It's over to you for six minutes.

Mr. John Barlow (Foothills, CPC): I'm going to let my colleague Mr. Lehoux go first.

[*Translation*]

Mr. Richard Lehoux (Beauce, CPC): Thank you.

Good afternoon, Mrs. Proud. I congratulate you on the quality of your French. If I may, I will ask my questions in French.

Do you feel it's important that we monitor shipments from Russia and Belarus?

You said that 25% to 30% of shipments are not delivered.

What do you think of this situation?

Mrs. Karen Proud: Thank you for the question.

[*English*]

Since the sanctions came into place and due to the fact that we didn't have all of the fertilizers secured in Canada at the time, our members have really been scrambling to find supply in order to make sure farmers have access to what they need. As I said in my opening statement, this is the most important time for Canadian farmers to have access to the fertilizers they need, and our eastern provinces were certainly most affected by the war in Ukraine.

We have been working closely with the government in feeding them information about the supply and about our concerns around supply. As I said, our members are working very hard to secure supply, some of which has been able to come in. That Russian product has been able to come in, but some of our members have also had to look at other sources of supply, both domestically and internationally.

[*Translation*]

Mr. Richard Lehoux: Thank you, Mrs. Proud.

On a related note, what effect might the fabled 35% tariff have on that 25% to 30% of fertilizer that still needs to be imported for Eastern Canada?

Representatives from Sollio Agriculture told me that the additional costs are over $50 million.

This is on top of current fertilizer costs, which are already much higher than last year. Again, we're talking about an additional $51 million in costs, which producers and distributors will have to bear.

Could the Government of Canada help farmers with these costs?

What solution would you foresee?

● (1555)

[*English*]

Ms. Karen Proud: We have been talking very closely to the federal government about the various sanctions, including the tariffs. What we've asked is that whatever the government does they do so in a fair and transparent way and ensure that they continue to have a level playing field not only with our members but for farmers as well. We want to continue those conversations with the federal government.

Obviously, a 35% tariff has an impact on the final prices of fertilizer. We also know that following the start of the war in Ukraine, fertilizer prices globally increased significantly, because of the high importance of the Russian fertilizer industry, which is now sort of out of the global supply. As I've said, we're working very closely with government. We do feel that the government should look into what it can do to ensure that costs are managed and that there's a fair approach to all players along the supply chain.

[*Translation*]

Mr. Richard Lehoux: Thank you, Mrs. Proud.

Do you have a long-term plan at Fertilizer Canada with respect to fertilizer supply for farmers, particularly those in Eastern Canada?

[*English*]

Ms. Karen Proud: Our members are certainly looking at their long-term plans. They develop their production plans based on a long-term vision of the needs and Canadian fertilizer. We just can't adjust our plans and our facilities overnight to meet specific demand or to address issues in the marketplace that tend to fluctuate up and down. Obviously this has a huge impact, the war in Ukraine, and we still don't know what the long-term effects will be, but we know that our members, where they can, have made commitments to increase supply in order for Canada to be able to meet some of that international demand and for countries to be able to depend on Canada.

[*Translation*]

Mr. Richard Lehoux: Thank you.

In that case, when you have a more comprehensive plan, could you share it with the committee?

My other question will address what you mentioned directly.

What recommendations would you make to the government for improving the whole issue of transportation, both west to east and east to west?

[*English*]

Ms. Karen Proud: That's a really important question.

As I mentioned, 75% of all fertilizer is moved by rail. Each time there is a disruption, we call on immediate action from the government. This last one, while lasting only two days, did have a significant impact.

We have asked that the government develop a long-term approach. There have been discussions about whether that means rail designated as an essential service. That's something that's certainly an option to discuss. I don't know whether that's palatable.

[*Translation*]

Mr. Richard Lehoux: Thank you, Mrs. Proud.

[*English*]

The Chair: Thank you.

[*Translation*]

Mr. Drouin, you have the floor for six minutes.

Mr. Francis Drouin (Glengarry—Prescott—Russell, Lib.): Thank you very much, Mr. Chair.

I would like to thank the witnesses for being with us today.

Mrs. Proud, your French is excellent. Keep up the good work.

[*English*]

I want to bring us back prior to February 24. Obviously, we know that the war in Ukraine has caused some shortages, but the availability of fertilizer, in general, was already somewhat scarce. That was obviously reflected in the price.

Can you explain what is happening in the market prior to...I know you touched on CP and Ukraine, but even in December and January, we saw prices going up.

In general, what were your members saying about the availability of fertilizer?

Ms. Karen Proud: I'm going to ask my colleague, Clyde, to jump in. He has more knowledge than I on the supply and demand, and history there. I think it's important to put it in context.

Mr. Clyde Graham (Executive Vice-President, Fertilizer Canada): Thanks, Karen.

Fertilizer markets are driven globally by supply and demand. The demand comes from growers around the world who buy the products.

Fundamentally, underpinning the market for a while has been a decline in global grain stocks, grains and oilseeds. The stocks of those products have been low for a time. That sends an important signal to growers around the world to produce more. The way you produce more food is by using more fertilizer. We've had a surge in demand for fertilizer products on a global basis.

As Karen had mentioned, over the last year there have been a number of global events that have disrupted supply. We had weather events in the United States. New Orleans and Florida are both important fertilizer manufacturing areas. We had one of our nitrogen facilities in western Canada that had to go down for technical reasons. China had strongly curtailed its exports of fertilizer in order to meet its own domestic demand.

Even before the invasion by Russia, the Russian government had restricted exports of fertilizer. Further, the high cost of natural gas in Europe had led to one of our large manufacturers in the U.K. stopping its production, because the cost of natural gas was simply too high.

All these events had come together over the last one to two years to lead to a very tight market for fertilizer, even before current events.

● (1600)

Mr. Francis Drouin: I know you've expressed the complexity of how to solve that, with some that are sourced through Russia, and some that went somewhere else, but paid a higher price for the fertilizer they were importing.

What do you recommend government do, knowing that you have some of your members that source through Russia, and would be impacted by that 35% tariff? Then you have other members that source through a different source, but pay a higher price. Have you proposed a solution?

Ms. Karen Proud: I wouldn't say we've proposed a specific solution to the government. It is difficult for us as an industry association in which we have to represent all of our members' interests. I think what we really want to see is that the government take an approach that looks at making sure there is a level playing field, not only for our members but for farmers who in some cases may be disadvantaged because of where they would buy their fertilizer. The government seems to be open to looking at this. We don't have a specific solution, but I think we need to have a conversation with those affected to see what the best solution might be.

Mr. Francis Drouin: Thank you.

In the medium term, I know you can't just turn around and start producing at some of your manufacturing plants overnight, but are you having conversations and are your members having conversations in terms of how they can increase their output so that next year we don't find ourselves with a shortage of fertilizer?

Ms. Karen Proud: With our potash manufacturing, one of our members has already very publicly come out and said that they are going to step up production for 2022-23. As I said, you can't just flip a switch. That means getting the mines ready, employing people, and getting the necessary [*Technical difficulty—Editor*] operating 24 hours a day, seven days a week. Without making additional investments in the facilities, we don't have a lot of room to increase our production in Canada. Whether or not these companies feel they need to invest in Canada or elsewhere in order to step up that supply, based on whether they think countries will be looking for more reliable sources in the future as well, is obviously a much longer-term business decision.

The Chair: Thank you, Mr. Drouin and Ms. Proud.

[*Translation*]

Mr. Perron, you have the floor for six minutes.

Mr. Yves Perron (Berthier—Maskinongé, BQ): Thank you, Mr. Chair.

I would like to thank the witnesses for being with us today and for making the effort to speak French.

I am going to address Mr. Pharand, whom we have not yet had a chance to hear.

Mr. Pharand, in one minute, can you tell us about the reality that your organization is facing?

● (1605)

[*English*]

Ms. Karen Proud: I'm sorry, but I'm not sure I got the whole question.

[*Translation*]

Mr. Yves Perron: My question was for Mr. Pharand, but I see that he's not online. I will ask him my question later.

Mrs. Proud, you say you haven't yet recommended any solutions to the government. What could we do to help the industry in a meaningful way right now?

Mr. Drouin said that the problems began before the conflict in Ukraine. So this is a difficult year for you and we need to help you.

Would temporary financial support help?

[*English*]

Ms. Karen Proud: I think it's a very complex question in terms of how to address the issues. Again, I think I'll ask my colleague, who has been having conversations with the government on options we may want to consider. I don't think we've gotten to a stage where we're really recommending, but I know there have been a number of options that have been discussed. Maybe I can pass it to Clyde to talk about the conversations we've been having.

Mr. Clyde Graham: Sure.

First of all, I think the difficulty for our members really relates to February 24 and then the sanctions, particularly the 35% sanction that came in March 3. Before that, the market was operating and we were not facing difficulties, but when the war started and the sanctions emerged, the companies that are importers from Russia were all in various stages and had different positions in the market. It is more complex than one-size-fits-all, and I think the government officials we talked to understand that. One of the key principles that would be important is that any compensation would fully flow to any farmers who had been impacted by the sanctions and the costs, but at the same time, some of our agribusinesses, our fertilizer importers, have taken some very significant losses in trying to comply and support the government sanctions and position on Russia.

[*Translation*]

Mr. Yves Perron: Thank you, Mr. Graham.

Mr. Pharand, they tell me you are with us.

Do you have any comments about this?

Mr. Benoit Pharand (Chief Executive Officer, Réseau Végétal Québec): I'm sorry I didn't answer the question I was asked earlier. I didn't understand the question and didn't know I could speak.

I represent the fertilizer, crop protection and seed industry. When I spoke with members of our network, I found two things that were a little more problematic. The first is the difficulty in getting supplies early in the season and the second is pricing.

I think a clarification must be made about pricing, primarily for Eastern Canada. The majority of products, if not all products, had been ordered prior to March 3. These products were not in transit, but they had been ordered.

Unfortunately, Canadian producers or producers in one part of Canada will be penalized by pricing. Producers primarily receive nitrogen products by ship. On the one hand, we don't know if we will get the product in time for the start of the season, and on the other, there is the price and when the order was placed.

Mr. Yves Perron: If I understand what you're saying, the government could help you by providing compensation for what was ordered before the sanctions took effect.

Is that correct?

● (1610)

Mr. Benoit Pharand: Compensation would be helpful, but perhaps an exception could also be made to allow these products to be sent so we could stock up. Secondly, an exception could be considered for products that had been ordered but were not yet in transit. That might be an avenue to consider. I also believe there would be an opportunity for compensation.

Before the war in Ukraine, prices had already risen significantly. The war is causing prices to go up, and the 35% tariff is really huge.

Mr. Yves Perron: If you could make one more recommendation to the committee, what would it be?

Mr. Benoit Pharand: I keep coming back to the same two things. First, we need to make sure we get the product in time for the start of the season. Second, we need to work with the government to find a way to get rid of these tariffs that are driving up production costs.

I have a two-pronged recommendation. The most important thing for everyone, especially for producers in Eastern Canada, is receiving the product. Secondly, the pricing issue is going to be very important this year.

Mr. Yves Perron: Thank you very much.

The Chair: Thank you, Mr. Pharand and Mr. Perron.

Mr. MacGregor, you now have the floor for six minutes.

[*English*]

Mr. Alistair MacGregor (Cowichan—Malahat—Langford, NDP): Thank you very much, Mr. Chair.

Mr. Graham, I want to pick up on the exchange that you had with Mr. Drouin, because he was asking about the increase in fertilizer prices that happened prior to the invasion, and you said that that was due to reduced production, which sent a signal to primary producers that they needed to plant more, and of course, they're going to have to use more fertilizer to do so. Not only has the war in Ukraine led to an interruption in fertilizer, notably Russian fertilizer, but of course, Russia and Ukraine together are 30% of the world's wheat supply.

There was a story in The Globe and Mail today that said this year's crop in Canada could be the most important one planted since the Second World War. Aside from what's going on with the price of Russian fertilizer, there's the fact that there is going to be demand for a massive increase in production, especially in Canada, to pick up that slack. Can you provide the committee with some information on what that's going to do to fertilizer prices?

Mr. Clyde Graham: Every year, planting around the world is a very important thing, and I think we're starting to realize that. It's not just one year that it's critically important, it's every year. But I understand what you're saying about the current situation.

I'll make just one clarification. What I was saying was that the signal that went to growers around the world came from the fact that global stocks of grains and oilseeds were low, and that meant high prices. They're using fertilizer to meet that demand for crops, from rice to corn to wheat and barley. Obviously, if you were going to be losing significant exports from Russia and from Ukraine into the world marketplace, that would tend to put price pressure on those grains and oilseeds. Again, farmers would be trying to take advantage of those high prices and the need for those crops by maximizing their production.

In Canada a lot of decisions about this year's planting have already been taken. Farmers have their seed. Most of them, thankfully, have their fertilizer, particularly in the west, but there's not too much that could be done by farmers to increase production this year in Canada or in many other parts of the world.

Mr. Alistair MacGregor: Ms. Proud, we have information from the federal government showing that of our total imports of fertilizer, Russia made up 16%. When you look at the other two major sources, the United States and the Netherlands.... I understand that our own domestic production is not going to be able to ramp up immediately, but in anticipation of trying to get more Canadian supply, employ more people and really give our economy locally here a shot in the arm, how do our production costs in Canada compare with those of the United States and the Netherlands?

● (1615)

Ms. Karen Proud: That's a very good question, to which I don't have a particularly informed answer.

I don't know, Clyde, if you're aware of the comparison of our production costs with the U.S. and certainly the Netherlands.

Mr. Clyde Graham: I'm not so sure about the Netherlands being a major exporter of fertilizer. We would probably get more from places like Morocco, the Middle East and places like that.

I think we could try to get you some cost comparisons. I think one thing that has been a damper on investment, particularly in nitrogen fertilizer in Canada, has been the cost of carbon, the carbon pricing and its outlook, because when you're planning investments, you're talking decades of life of a nitrogen fertilizer plant. That perhaps has been one of the reasons we haven't had new plants built in Canada for many decades.

Mr. Alistair MacGregor: I'm sorry to interrupt. I want to get one more question in.

Russia annexed Crimea back in 2014. There has been a low-level war going on in the Donbass region of the Ukraine for several years. Of course, there were rumblings leading up to the current conflict for many months. Did any of your members anticipate that this was going to happen? I think the tea leaves were showing that a conflict was about to erupt.

Further to a previous question, how do we develop a long-term strategy knowing that conflict in this region and that sanctions on Russia will probably remain in place for quite some time?

Ms. Karen Proud: I think we absolutely need to be a reliable source of fertilizer in Canada. I would say our members—frankly, most folks around the world—didn't anticipate the sort of war that we've now seen with Russia invading Ukraine the way they did. The contracts they would have entered into with the Russian suppliers were many months before this conflict even happened. They weren't able to really anticipate at the time, and when the time happened, there wasn't sufficient time to make alternate plans or change course.

I think the big thing that our members and countries around the world and others are looking for is this: Where is the supply going to come from? Who can be that reliable supply? I would argue that Canada can be that reliable supply. We just need investment here.

The Chair: Thank you, Ms. Proud.

Thank you, Mr. MacGregor.

We're going to go to our second round now, with Mr. Barlow for five minutes.

Mr. John Barlow: Thank you, Mr. Chair.

There are a lot of questions arising out of the situation in Ukraine and Russia. I'd like to try to get a bit more clarification on where we stand on that.

Ms. Proud, have you received any more clarity from the government on the application of the tariffs and, specifically, the fertilizer that was prepaid and en route before March 2?

Ms. Karen Proud: We are still seeking some clarification from the government. We understand that there is a process that our members can go through in order to potentially get Russian shipments of product into the country. Those sanctions are on ships docking in the country. We don't have complete clarity as to what that process is and how one goes to apply for it. We understand that there are some guidance materials being produced, and we're still waiting to see them.

While the government has been helpful in part, there is still a lot of detail we're looking for, specifically if we have longer-term needs. It's not one ship here or one ship there. We are waiting for that information.

Mr. John Barlow: In that same vein, will fertilizer that is in transit from Russia and Belarus be allowed to be off-loaded in Canada, or is it going to have to be moved to a ship of a different flag? Do you know?

Ms. Karen Proud: Some of that fertilizer arrived in Canada and was off-loaded. That was that period of what was in transit versus what—

[*Translation*]

Mr. Yves Perron: Mr. Chair, we have a problem.

● (1620)

[*English*]

Ms. Karen Proud: —may have been purchased—

An hon. member: I have a point of order.

The Chair: Ms. Proud, we're getting a lot of feedback from your mike.

I'll suspend for a second, and we can see if we can get that figured out.

Mr. Barlow, I've stopped the clock.

Madam Clerk, I'll take some direction from you as well. If we can't get it resolved, we'll have to turn it over to Mr. Graham to finish.

● (1620)

(Pause)

● (1620)

The Chair: Mr. Barlow, we're going to continue. I have you at two minutes.

I'll let you pick up from wherever you left off.

Mr. John Barlow: Thank you.

Please answer quickly, because I have a couple of other questions.

Ms. Proud, ships that are en route with fertilizer from Russia and Belarus will be allowed to off-load in Canadian ports. You were saying that some have already done so.

Ms. Karen Proud: Ships that were en route before the sanctions—

The Chair: I'm sorry, Ms. Proud. We're having issues.

Mr. Barlow, you'll have to direct your questions through Mr. Graham.

I apologize, Ms. Proud.

I'll let you continue.

Mr. John Barlow: Mr. Graham, I understand that other countries, such as the United States and Brazil, are going to exempt fertilizer imports from tariffs. You and Ms. Proud were talking about having a level playing field in Canada with our producers.

What would be the implication of a level playing field and our competitiveness internationally if we are or are not imposing the tariffs in other countries?

Mr. Clyde Graham: If there were a 35% tariff that applied to Russian fertilizer, with any imports coming to Canada, the farmers would be paying...or if the supply chain, however it were impacted.... It would mean a 35% higher price in Canada than in other areas. However, it would depend on—

Mr. John Barlow: Thank you.

I have one last question.

I understand that Global Affairs Canada has developed a guidance document to address some of these questions and give you some clarity. The United States has already made public similar guidance documents. Are you aware of this document from Global Affairs Canada?

Mr. Clyde Graham: I haven't personally seen it. I don't know if it's gone through other staff to our members yet.

Mr. John Barlow: Ms. Proud, can you shake your head one way or another to give us a yes or a no? No.

Knowing that, Mr. Chair, as my time runs out here, I would like to table a motion at committee:

> That the committee request from Global Affairs Canada any guidance documents surrounding the application of sanctions being applied to fertilizer inputs imported into Canada be tabled with the committee and published on its website.

I can send an email to the committee with the wording on that, but I'm happy to read it again, if so desired.

The Chair: I think it was relatively clear. I'm sitting in Nova Scotia, and I could understand, but I'll take some guidance from the room and from the clerk as to whether or not members need that to be discussed.

My understanding, Madam Clerk—and jump in if I'm wrong here procedurally—is that this is something we'll have to deal with. I would prefer for us to be able to get through the questions. Perhaps make sure that the motion is disseminated, if that's okay with Mr. Barlow, to proceed forward.

I see Mr. Turnbull's hand.

● (1625)

Mr. Ryan Turnbull (Whitby, Lib.): Thanks, Mr. Chair.

I wonder if we could have the motion circulated. I prefer to see it in writing in both official languages. I always like to be able to read something like this before I can feel confident in supporting it.

Thank you for that. I appreciate it.

The Chair: Mr. Barlow, I'm not sitting right beside you, but I think you're quite reasonable.

While we have our witnesses here and given the fact we were a bit delayed from the House, we want to get through the next round of questioning. Are you okay to make sure that's distributed and we'll make sure we deal with it before we adjourn here today?

Mr. John Barlow: Yes, the email has been sent out to all the members. I'm fine if we vote on it at the end of this meeting today.

The Chair: Thank you very much.

I'm going to move forward, then.

I have Mrs. Valdez for five minutes. Then we'll have Mr. Pharand and Mr. MacGregor and we're going to wrap up.

We'll go over to you, Mrs. Valdez.

Mrs. Rechie Valdez (Mississauga—Streetsville, Lib.): Thank you, Chair, and thank you to the witnesses who are here today.

In previous committee meetings we discussed the devastating climate impacts on agriculture and ultimately on supply chains. Mr. Graham, you mentioned it as well.

Fertilizer Canada recently shared the announcement of a renewed agriculture partnership to provide Ontario growers with sustainable solutions.

Could you share with us how this announcement will assist Ontario agriculture moving forward?

Mr. Clyde Graham: I'm not sure I have the details on that agreement. We have a number of different agreements with the provinces.

Karen, do you have details on that?

The Chair: Ms. Proud, I apologize, but we're not getting any sound from you at all.

I know this has been difficult. Mrs. Valdez, perhaps you could ask for that to be tabled.

Mrs. Rechie Valdez: I'm going to ask it a different way.

Essentially, it's renewing the memorandum of co-operation for the 4R nutrient stewardship program. That's kind of a refresher. I want to know how that would benefit—

Mr. Clyde Graham: That's great.

We have memorandums of understanding with a number of provinces, including Ontario, to work with their departments of agriculture and environment and with grower groups to advance the 4R nutrient stewardship program. A lot of the work in Ontario has been to reduce phosphorus loss into Lake Erie.

Of course, if farmers are using the 4Rs to improve the efficient use of fertilizer generally, that has significant benefits related to emissions of nitrous oxide and mitigating climate change.

Mrs. Rechie Valdez: Can you share whether those best practice principles will help reduce the amount of fertilizer that's required in Canada?

Mr. Clyde Graham: The amount of fertilizer used in Canada tends to be based on the yields that growers are trying to achieve. Improving the efficiency of fertilizer generally tends to lead to higher yields, but not necessarily a reduction in actual fertilizer use.

What we would like to see and what we aim for is that the yields grow faster than the consumption of fertilizer.

Mrs. Rechie Valdez: Earlier we talked about how we want Canada to be a reliable source. How does the 4R nutrient stewardship help growers reduce environmental impacts or potentially help with soil health?

Mr. Clyde Graham: The 4R program has gone through extensive scientific evaluation by major Canadian universities, and in some cases government researchers, to show the benefits. Certainly, we've demonstrated reductions in nitrous oxide emissions from fertilizer use, losses of phosphorus to water and leaching to groundwater.

All [*Technical difficulty—Editor*] show that farmers' net economic returns from 4Rs are very positive, so we are seeing a growing adoption by farmers across Canada.

Mrs. Rechie Valdez: Thank you, Mr. Graham.

Mr. Pharand, do you want to comment as well?

[*Translation*]

Mr. Benoit Pharand: If you are talking about training on these nutrients, I can tell you that, in conjunction with Fertilizer Canada, we have provided various types of training to technologists and agronomists, that is, to the people who are applying them on the ground, in the fields.

We will be entering into a new agreement to direct farmers to this sector. In Quebec, environmental farm plans for fertilization already take into account some factors specific to that province. Over the next few months and years, we will be anchoring these principles in Quebec agriculture.

● (1630)

[*English*]

Mrs. Rechie Valdez: Thank you so much.

Mr. Chair, I think my time is up.

The Chair: You gave us nine seconds back, so we'll remember that in the future.

[*Translation*]

Mr. Perron, you have the floor for two and a half minutes.

Mr. Yves Perron: Thank you, Mr. Chair.

Mr. Pharand, you mentioned that your main concern was that the products arrive on time, which we understand, of course. Mr. MacGregor asked a very good question earlier. He pointed out that we can expect the sanctions to be in effect for quite a while.

How could we find alternate suppliers or get local producers to take advantage of this space opening up in the market?

Is it realistic to think we could take steps to foster the development of local industries, and do it quickly?

Mr. Benoit Pharand: First, in terms of the missing products—and I am talking about Quebec here—some were ordered in October and they never left port. So they didn't arrive. Others were ordered in January. The products representing the entire supply to meet our needs for the year had already been ordered so that they could be shipped on time. We have four to five weeks left before the season starts, in my opinion, unless the weather doesn't cooperate. We need those products as soon as the season starts.

I have spoken to all our members. We're considering various options for sourcing elsewhere. All options are on the table. In Quebec, the St. Lawrence River makes it very easy for us. We will find solutions.

As to whether we'll be able to source locally, I would tell you that it would be difficult in the medium to long term, although we are considering all options. As soon as the season is over, we will begin to address supply for 2023, in addition to seeding and post-emergence applications.

All options will be considered. Of course, we will have to consider price, availability and quality of product. We are looking at that right now.

Mr. Yves Perron: Okay.

The Chair: I'm sorry, Mr. Perron, but you only have 10 seconds left. So your time is up.

Since Mr. MacGregor is giving up his turn, I will use my discretion to allocate two minutes to the Conservative Party and two minutes to the Liberal Party.

[*English*]

Do you want two minutes, Mr. Epp?

Mr. Dave Epp (Chatham-Kent—Leamington, CPC): Yes. Thank you.

In Canada, we have the opportunity to become—if we get things built—self-sufficient in nitrogen. We have the feedstocks, and we certainly have potassium that we can supply ourselves and others with.

I'd like to focus a bit on phosphorus, both in the short term and the longer term.

My understanding is that Florida is one of our suppliers, but it's waning in production. Obviously, Russia and Morocco have been suppliers. If Russia ceases to be a supplier...my understanding is that the EU has banned some imports of phosphate from Morocco due to cadmium concerns.

Where are we at with that, from a cadmium perspective, in the future? My understanding is that it's not that serious, but I'd like Fertilizer Canada's perspective on that.

Mr. Clyde Graham: Canada has very stringent regulations on the presence of cadmium in fertilizer. I believe that the imports of phosphate fertilizer from Morocco meet the Canadian standard, which has been well established and there's a great deal of confidence in it. The EU has a different kind of standard. As we know, there are times when the European Union will engage in standards that are more about protectionism than—

● (1635)

Mr. Dave Epp: Thank you. I'd like to get one more question in, if I may.

Can we consider phosphate sources from our cities, from our sewage systems? I know as a vegetable producer I've been banned from using it, but I know our grains can. Is that a potential, viable source of phosphate in the future, and/or do we have potential mine sources further north?

Mr. Clyde Graham: The last phosphate mine in Canada closed quite a few years ago in Kapuskasing, Ontario. I'm not aware of any other economically feasible deposit in Canada. There are limitations. Phosphate, like potash, depends on the availability of the deposits—

The Chair: Thank you, Mr. Graham. I apologize, but we're going to have to leave it there. I welcome you to send any additional information to this committee, because I think it's a warranted question.

Mr. Clyde Graham: Will do.

The Chair: Mr. Louis, you're going to finish this up. It's over to you for two minutes.

Mr. Tim Louis (Kitchener—Conestoga, Lib.): Thank you, Chair.

Thank you to our witnesses. I appreciate this.

I wanted to maybe continue the conversation a bit more on the long term. We know that fertilizers are the largest on-farm expense for crop producers, and even prior to the conflict in Ukraine, the prices had already risen rapidly.

Canada's fertilizer industry is one of the most efficient in world, so I'm interested in learning about the sustainable methods of improving the industry's environmental impacts, ways of using less fertilizer that won't cut into productivity, because we've already heard it. Our farmers want to do their part by acting on climate change and reducing emissions. Efficient fertilizer management is integral to any program and can be cost-saving to farmers. This is especially true of nitrogen, which, if used ineffectively, can contribute to nitrous oxide emissions, which are more powerful than carbon dioxide.

I looked into the nitrous oxide emission reduction protocol, which gives farmers a new way of benefiting from reducing their greenhouse gas emissions. Can you at Fertilizer Canada—either witness—explain the program that helps our farmers with climate-smart agriculture?

Mr. Clyde Graham: Sure. I would note that the committee could reference the recent discussion paper from Agriculture and Agri-Food Canada on its emission reduction plan for fertilizer. I think in the plan you'll note that there are 26 different references to 4R nutrient stewardship, and so we greatly appreciate the confidence that the Department of Agriculture has placed in that program, and we're anticipating a spirit of co-operation with the department. That will be very important.

Under 4R nutrient stewardship, farmers are encouraged to use the right source of fertilizer at the right rate, the right time, the right place. When they are doing this with the reduction of nitrous oxide in mind, we've seen scientific data show a 15% to 25% reduction in N2O emissions per unit of crop produced. I think with some of the enhanced efficiency products, that could even be higher than that.

Also, we are always looking to help growers get the maximum value they can from every dollar they spend on fertilizer, and that's a key component of the 4R nutrient stewardship program.

The Chair: Thank you, Mr. Graham. Thank you, Mr. Louis.

[*Translation*]

I would like to thank all the witnesses for being here today.

[*English*]

Thank you for your leadership and your testimony on what is a really important subject. We certainly value your contributions.

Colleagues, we'll bid adieu to our first panel of witnesses. Please don't go far. We're going to just be a minute or two, and we will transition into the second panel and get going.

● (1635)

_____(Pause)_____

● (1640)

The Chair: Colleagues and witnesses, we're going to continue.

Pursuant to Standing Order 108(2) and the motion adopted by the committee on Monday, January 31, 2022, we are resuming our study of the environmental contribution of agriculture, so we're switching it up this hour.

Joining us today by video conference, from the Canadian Forage and Grassland Association, we have Cedric MacLeod, who serves as the executive director. From the Canadian Roundtable for Sustainable Beef, we have Andrea Stroeve-Sawa, who serves as a council director, and also Kristine Tapley, who's also a council director, and Monica Hadarits, who serves as the executive director. From Ducks Unlimited Canada, we have Paul Thoroughgood, national manager of agricultural sustainability, and James W. Brennan, Jim Brennan, who is the national director of industry and government relations.

Welcome, everyone.

It's good to see you again, Mr. Brennan, and welcome to the committee.

We're going to have five minutes for opening remarks from each organization, and then we're going to get right into questions.

I'm going to start with Mr. MacLeod.

You have five minutes. The floor is yours.

Mr. Cedric MacLeod (Executive Director, Canadian Forage and Grassland Association): Thanks so much, Mr. Chair. It's a pleasure to be here. Thanks for the invitation. I'm really glad to be witnessing with some esteemed colleagues here today and I'm looking forward to a good discussion around this topic.

I'll start with some context. Around the Canadian forage sector, we're just about 70 million acres coast to coast, so it is the largest land use type in Canadian agriculture. It's important to note that and it impacts a lot of the other witnesses on the panel this afternoon.

There's a challenge though that we see before us, and I"ll give you a few numbers pulled from the census data here. Back in 2011, we had roughly just over 36 million acres of what we call native rangeland, which have been around for some thousands of years. And when we moved to five years later, 2016, we were looking at just over 35 million acres. It's about a loss of a million acres of native rangeland. I'll discuss a little bit later why that's so important.

Similar to the tame forage sector between 2011 and 2016, we saw just under a loss of four million acres of forages across Canada. That trend unfortunately has continued. So if we look into the latest census data, you're going to see that continued decline in the number of forage acres across the country. To compare to other annual type crops in the country, with the forage sector generally, the crops produced are fed here in Canada. It is part of the cyclical economy, so we're moving our nutrients back and through our livestock systems and back out onto the landscapes. It creates a resilient system that needs to be protected.

The forage sector in Canada [*Technical difficulty—Editor*] thousands of tonnes of dry hay products around the world into countries like the United States, Korea, Japan, China and numerous destinations throughout the Middle East, so it's an important contributor there to economic development or the total GDP of the country.

As we move into the environmental impacts, I'm going to reference a document and I will share this document as evidence for the committee. In 2012, we had a study commissioned that looked at the total economic value of the Canadian forage sector and also its environmental contribution. I'll mention a few numbers to note out of that report. These are coming out of Alberta and Saskatchewan respectively.

The total ecological goods and services value of the forage sector in Alberta was estimated from just under $400 million to somewhere in the $1.3 billion range. And, yes, that is a big range because markets fluctuate and the study is due for a refresh.

In Saskatchewan, there was the same value, about $890 million to $1.9 billion, so significant contributions from [*Inaudible—Editor*].

What are those contributions? We've got carbon sequestration. We know those 36 million acres of native rangeland out west contained billions of tonnes of carbon dioxide equivalence that needed to be protected. And as we're seeing the conversion of those native rangelands into annual croplands, we are losing that carbon. So that's an important consideration that needs to be protected and we need to stem that reduction.

Also, there's the provision of biodiversity and habitat features. One of the richest habitat features in Canadian agriculture with respect to species at risk and species in general is Canadian grasslands. As we lose those grassland acres, so too we lose those habitats, and that creates additional pressure on our species at risk.

There is also water quality. Water that moves across that is not absorbed within agricultural soils typically finds itself into a forage of some sort. So we are offering significant water quality protection and those barriers are a natural filtration to our water systems, rivers and riparian zones as well as wetlands.

I'm going to close out here. In the larger conversation these days on soil health, forages, both annuals and perennials, are driving a lot of those contributions, so when it comes to climate resilience, the forage sector is the foundation for supporting that soil health.

● (1645)

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

We'll turn now to Ms. Hadarits, for five minutes.

Ms. Monica Hadarits (Executive Director, Canadian Roundtable for Sustainable Beef): Mr. Chair, if it's okay, I'm going to hand it off to Andrea Stroeve-Sawa, who will deliver our remarks.

The Chair: Ms. Stroeve-Sawa, please go ahead.

● (1650)

Ms. Andrea Stroeve-Sawa (Council Director, Canadian Roundtable for Sustainable Beef): Good afternoon, and thank you for the invitation to participate in the standing committee's study on the environmental contribution of agriculture.

My name is Andrea Stroeve-Sawa, and I am a beef producer from Taber, Alberta. I am also a council director for the Canadian Roundtable for Sustainable Beef, the CRSB.

The CRSB is a multi-stakeholder organization focused on advancing sustainability in the Canadian beef sector. We bring together beef farmers and ranchers, processors, retail and food service companies, NGOs, food and agriculture businesses, academic institutes and various levels of government. We believe collaborative and outcome-based approaches to addressing challenges and opportunities in the food system are imperative to making meaningful progress.

Canada is a global leader in sustainable beef production. In 2016, Deloitte LLP completed a benchmarking study to help us understand the social, economic and environmental performance of Canadian beef, from farm to fork. The study found that Canadian beef has one of the lowest greenhouse gas footprints in the world—less than half the world average—and accounts for just 2.4% of Canada's total greenhouse gas emissions.

In addition, beef producers manage 34 million acres of grasslands, a globally endangered ecosystem with less than 20% remaining intact. Those grasslands store 1.5 billion tonnes of carbon, sequester the equivalent of 3.6 million cars' worth of additional carbon emissions per year, and are home to over 60 species at risk.

This sector has reduced its greenhouse gas intensity per kilogram of beef by 14% over the past 30 years, and has set ambitious goals for 2030. These goals include, but are not limited to, reducing greenhouse gas intensity by a further 33%, sequestering an additional 3.4 million tonnes of carbon per year and maintaining the 34 million acres of grasslands in the care of beef producers.

A recent scientific study led by Nature United assessed natural climate solutions, and showed that avoided grassland conversion represented one of the largest climate change mitigation opportunities in Canada. We also need to collectively invest in long-term research, and enable innovations that help the sector reduce its greenhouse gas footprint. For example, Agriculture and Agri-Food Canada researchers have demonstrated that a product called 3-NOP can reduce methane emissions by up to 70% to 80% in feedlot cattle. This product has been approved for use in the European Union, Brazil and Chile, but has not been approved for use in Canadian cattle. We need to have timely approvals and access to these types of technologies to help us achieve our goals.

In 2017, the CRSB launched the first outcome-based certification program for beef sustainability in the world. We are very proud of this achievement. The certification includes requirements for environmental management, including grasslands, tame pastures and soil health. However, the one thing that sets this program apart from other certification programs in the world is the comprehensive systems view we take on sustainability. For example, we also include requirements around people, the community, animal health and welfare, food safety, efficiency and innovation.

The program has grown substantially in the past few years, with 17% of the cattle herd now being raised on CRSB certified farms and ranches, and eight retail and food service companies sourcing beef through the program. A paper by Haugen-Kozyra in 2021 highlighted how this credible and robust program can be used as a model in other jurisdictions.

Food loss and waste in Canada is a huge problem. About 58% of food is lost or wasted annually. That means that all the resources used to grow and produce that food are also wasted. Cattle have the unique ability to combat food loss and waste by upcycling products that are not suitable for human consumption. This includes crops damaged by weather or pests, by-products of manufacturing and even produce that does not meet retail standards for appearance.

● (1655)

In addition, manure produced by cattle provides a natural fertilizer for cropland.

In our work, we've learned that it's important to understand the Canadian context and to develop solutions through collaborative processes. The Canadian beef sector is a key partner in achieving Canada's environmental goals, and we look forward to continuing to lead the world in sustainable beef production.

Thank you once again—

The Chair: Thank you, Madam Stroeve-Sawa.

We're going to now turn to Ducks Unlimited.

Mr. Thoroughgood, you have five minutes.

Mr. Paul Thoroughgood (National Manager of Agriculture and Sustainability, Ducks Unlimited Canada): Thank you, Mr. Chair.

Members of Parliament, my name is Paul Thoroughgood. I'm the national manager of agricultural sustainability. With me is [*Technical difficulty—Editor*.

On behalf of the 100,000 supporters that we have across the country, we'd like to thank you for the opportunity to participate in this important study.

As you're aware, we have worked in partnership with various sectors across the country, including agriculture, to improve the ecological health of Canada's working landscapes since our founding more than eight decades ago. We believe that despite market pressures and global challenges there are solutions at hand that will enable us to meet our economic, social and environmental goals.

Furthermore, we believe that Canadian agriculture is and must continue to be a significant solution provider to these challenges.

One example I'll cite is how Canadian farmers, scientists and extension agents showed the world how to make wind erosion of our soils a part of the past through the innovation of no-till farming and, as mentioned earlier, beef and dairy sectors in Canada both produce their products with less than half the global average greenhouse gas footprint.

One of the things we'd like to discuss is that areas under agricultural production, like pastures, hayfields and crops, are recognized as assets on the farm, and they generate economic livelihood for landowners. In comparison, remnant habitats, like wetlands and grasslands, are often viewed as unproductive and even as liabilities, which makes them ripe for removal. This leads directly to the loss of these habitats right across our country and to losing their ability to remove carbon and store it.

The power of remnant habitats to help fulfill Canada's environmental goals is significantly greater than their area. For example, based on Ducks Unlimited Canada research, as well as research conducted by our partners, maintaining four acres of wetlands stores as much carbon as would be sequestered by no-tilling an entire quarter section of cropland on the Canadian prairies for 25 years.

The environmental benefits generated by sustainable agriculture also go well beyond carbon sequestration. Ducks Unlimited Canada submits that biodiversity enhancement and recovery, water quality improvements and water quantity management are key environmental benefits that also should be recognized. Remnant grasslands and wetlands embedded in cropland, for example, provide critical habitats for many species, as well as providing improved water quantity and quality services.

[*Technical difficulty—Editor*] to realize its full environmental and economic potential we believe the practical and pragmatic solution is to sustainably intensify production on the landscape while ensuring that no natural areas are brought into production.

Adoption of beneficial management practices like 4R nutrient management and integrated pest management are important parts of this process. We believe that 4R, in combination with retirement of marginal crop areas within fields, could meet or possibly even exceed Canada's goal of reducing greenhouse gas emissions associated with fertilizer applications by 30% by 2030.

In summary, for Canadian agriculture to optimize its contribution towards helping Canada meet its climate and biodiversity goals, we offer the following recommendations.

First, Canada should re-incentivize the retirement of economically and environmentally underperforming areas within cropped fields, very similar to Greencover Canada and permanent cover. Similarly, we should incentivize the retirement of smaller areas within cropped fields to remove them from production.

As well, Canada should develop a comprehensive soil health strategy to support the resilience and productivity of our soil resource.

We also should increase investments in technology transfer for higher public good BMPs like 4R nutrient management, integrated pest management and the protection and management of remnant areas.

We should increase investments in geospatial and other scientific data to support the monetization of ecological goods and services provided by good land stewardship. This would include the development of ecological goods and services protocols.

We would recommend accelerating the completion of Canada-wide inventories for things like grasslands and wetlands, which will support sustainable agriculture.

Last, we would suggest the development and adoption of a comprehensive land use strategy by all levels of government and stakeholders to strike a balance between urban expansion, agricultural production and environmental protection.

● (1700)

Thank you, and I look forward to answering your questions.

The Chair: Thank you very much [*Technical difficulty—Editor*].

[*Technical difficulty—Editor*] turn to question period. Before I do, I have not forgotten about Mr. Barlow's motion that was brought forward.

I'm going to start with the first round of questions for six minutes each. Mr. Drouin, I know you're in the room, along with Mr. Perron, Mr. MacGregor and Mr. Barlow. I expect that you all can have a conversation and liaise with me, so I know how much time we're going to have to leave at the end.

We're going to start with Mr. Falk for six minutes. It's over to you.

Mr. Ted Falk (Provencher, CPC): Thank you, Mr. Chair.

I want to thank all of our witnesses for their presentations this afternoon.

I would like to start off with the CRSB folks. Thank you for that presentation. In it, you talked about the number of producers that are signing up or qualifying to be part of a certification program you have going.

Could you talk a bit more about what needs to be done to increase participation in your certification program?

Ms. Andrea Stroeve-Sawa: One of the biggest things is the cost of the producer audit. It's a big barrier, so we're working on ways to reduce the financial burden of the audit. Enhancing public awareness and trust of the program are also an opportunity to increase adoption and demand.

Mr. Ted Falk: Is there a financial incentive to producers for being on the program?

Ms. Andrea Stroeve-Sawa: I can speak to that a bit, and I might ask Monica to jump in.

I am a beef producer from Taber. Cargill is offering an incentive. For the animals that go through the program and are processed at Cargill, the company will pay a certain dollar amount per head to the rancher and to the feedlot owner, or the person who backgrounds and the person that finishes those animals.

I don't know, Monica, if you have anything to add to that.

Ms. Monica Hadarits: I would add that there's no financial incentive directly through the CRSB, but there is an opportunity for that to happen through supply chains. However, that's not something that's required [*Technical difficulty—Editor*].

Mr. Ted Falk: Right. I was wondering if there was an incentive for producers to be part of the program—Andrea mentioned the cost of participating through the audit—and whether there was also an incentive that would motivate people to be part of the program, but not one that's mandated by the industry.

Is there a preference being shown by the packers or the slaughterhouses for animals that are part of the program?

Ms. Andrea Stroeve-Sawa: There is a preference, and it depends on the packing house they use. Cargill is offering it. JBS is not offering at this point.

Monica, do you need to add anything in there?

Ms. Monica Hadarits: No, I think you covered it.

Mr. Ted Falk: What would be ways, in your opinion, that we could maintain Canada's grasslands?

Ms. Andrea Stroeve-Sawa: We need to recognize the work of the early adopters, the people who have been doing this grazing management for years and years and who have not only maintained their grassland management, but actually improved it. We need to explore tax incentives and programs that encourage keeping native grasslands intact, including market mechanisms that provide ecosystem service payments. We need to invest in further research and understanding of land conversion across Canada.

Mr. Ted Falk: Thank you.

In your presentation, you talked about the 3-NOP product, which is available right now, I think, through veterinarian application or prescription. There's been a request from the industry for the government to certify it more quickly, like many other countries have done. You mentioned the EU, Argentina and Brazil.

I think you mentioned that a 70% emissions reduction is a reasonable expectation. That would be, I believe, methane reduction. Is that right?

● (1705)

Ms. Andrea Stroeve-Sawa: Yes. That's in the feedlot sector.

As we understand it, there's no clear regulatory pathway for feed additives to receive an environmental claim. Currently, those products go into an existing drug approval pathway that's really time-consuming and very costly. The technology exists and has been proven to be safe and effective, but we can't access it. The only pathway that companies have to date for these types of products is through a veterinary drug submission with Health Canada.

We would recommend that a feed pathway be developed that would allow the registration of these types of products by the CFIA as feeds and not as veterinary drugs.

Mr. Ted Falk: Thank you for that clarification.

I'll move over to the Canadian Forage and Grassland Association, Mr. MacLeod.

You talked about the benefit of native rangelands and that this past year we lost a million acres of that. We currently still have 36 million acres of native rangeland. What would be the saturation levels for carbon sequestration in native rangeland as compared to cropland?

Mr. Cedric MacLeod: That's a great question, and you're hitting on an important component of trying to drive carbon into agricultural soils. We do know that, over time, we reach those saturation levels, and it's really the degraded landscapes that have the best opportunity to absorb more carbon. To Paul's point, some of those maybe marginal cropland acres that have been best suited to perennial cover is where we're going to get our best bang for the buck on additional carbon storage.

What we've advanced is the idea of making sure that we're protecting those and avoiding the conversion of those rangelands to annual cropland and losing carbon through that process. We built a Canada grasslands protocol that helps to quantify that and offers carbon offset opportunities through the voluntary market to avoid the conversion of those grasslands.

The Chair: Thank you, Mr. MacLeod.

I apologize, Mr. Falk. We're out of time, but thank you for your six minutes.

We're going to go to Ms. Taylor Roy now for six minutes.

Ms. Leah Taylor Roy (Aurora—Oak Ridges—Richmond Hill, Lib.): Thank you very much, Mr. Chair.

Thank you to all three witnesses. I found it very interesting with a lot of hope about the future by using our agricultural lands to sequester carbon and to help us with the environmental challenges we're facing.

I want to start with Ducks Unlimited. The work you're doing is great in trying to save wetlands and other marshlands. I grew up in the Holland Marsh area—Bradford West Gwillimbury and Barrie—where there are lots and lots of marshlands.

A lot of this falls under provincial jurisdiction. Just recently, a highway has been approved by the Ontario government that goes through some very significant wetlands and farmland connecting Highways 400 and 404. Much of this is in the provincial jurisdiction, where we cannot really intervene.

How do you think we can address the need to maintain these wetlands and show the value of them when there are proposals to build highways through these very sensitive and valuable areas?

Mr. Paul Thoroughgood: Thank you for the question. I'm going to hand it over to my colleague, Jim Brennan, who is an Ontarian rather than have a Saskatchewan farm boy answer your question.

Mr. James Brennan (Director, Government Affairs, Ducks Unlimited Canada): Thanks for your question. I know that area very well; I used to live in Barrie, Ontario.

The challenge with protecting wetlands, of course, is to know where they are to classify them and to afford some degree of protection.

You're absolutely right that land management falls under the provincial area of jurisdiction, so we end up straddling through our policy work in the federal end and provincial acts, regulations, policies and so on. Really the most effective thing to do would be to have comprehensive policies in place to protect wetlands, and Ontario does have a policy to protect provincially significant wetlands, which is about one third of the province. That, of course, leaves the remaining two thirds of the wetlands in the province relatively unprotected.

There are some further precedents or approaches to avoid, minimize and mitigate impacts, so, when you do undertake linear construction activities like road building, we recommend, as do most conservation organizations when habitat loss takes place, that efforts be made to minimize, avoid or mitigate the impact.

As for mitigation, there are some very robust policies at hand in certain provinces in Canada. The Atlantic provinces have good policies in place, as does Alberta, but certainly putting in place policies to address those losses and to replace lost wetland area and function would be the most effective way to do that.

● (1710)

Ms. Leah Taylor Roy: To follow up on that, do you feel like the value of these wetlands is adequately enumerated when people are looking at them? I know with things like flood mitigation that wetlands have a [*Technical difficulty—Editor*] kinds of studies are being done that the full value of the wetlands is being taken into account.

Mr. James Brennan: We have certainly learned more about the value of wetlands over time, but I think the short answer to your question is that more work definitely needs to be done.

There are economic values associated with carbon capture, with water retention [*Technical difficulty—Editor*] ecological service values associated with wetlands. Certainly, efforts are being made now through the Statistics Canada census of environment and through various international accounting activities that are under way to try to measure and quantify the value of our natural assets, including wetlands. These are going to be really important to help us manage them now and into the future. Of course, there are costs associated with taking natural cover off the land.

When you do remove those assets, you invariably have to pay for them through man-made or built infrastructure replacement solutions, or our preference, which is—aside from leaving the natural cover in place—to mitigate or replicate those services, so that there is a no-net-loss type of situation in the end.

Ms. Leah Taylor Roy: Great. Thank you.

Mr. MacLeod, I was just wondering about the decrease in the rangeland and especially in the tamed, forage lands that we've seen. I can only imagine it's continuing to go in the same direction.

I wonder whether you feel there is a way to more greatly monetize the beneficial impacts of those lands on our environment in order to retain more of them. I know it's been done to some extent, but do you feel there is more potential for that? How would you suggest that be done?

Mr. Cedric MacLeod: I think the first opportunity is to recognize that carbon value and the increased carbon value. Through that, we would suggest that the Canada grassland protocol,—which is now approved under the Climate Action Reserve in the U.S., allowing for access to voluntary carbon markets—be firmly embedded in Canada's regulated carbon offset system to allow that carbon store to be valued, ideally, at that $170 per tonne range, both currently and into the future. That would offer significant incentive to keep those grasslands intact.

I think the second piece of that would be a full recognition of all the EG&S values maintained by those grasslands, which my other colleagues have already suggested is vitally important.

The Chair: Thank you, Mr. MacLeod.

Thank you, Ms. Taylor Roy. We're at six minutes.

[*Translation*]

Mr. Perron, you have the floor for six minutes.

Mr. Yves Perron: Thank you very much, Mr. Chair.

Mr. MacLeod, I would like to let you continue on with this.

If we could find a way to assess the environmental performance of soils—witnesses have told us that they have developed methods to do that—and reward producers for maintaining grasslands, do you feel it would be possible to stop the loss of grasslands and forage plants?

[*English*]

Mr. Cedric MacLeod: Yes, thanks for the question.

It's a bit of a complex challenge conversation to be had. I think it links to what the folks from CRSB have brought forward and the importance of maintaining a functional beef herd, which really dominates the use of our grasslands across Canada.

I am a beef producer myself and heavily involved with the beef sector here in the Maritimes. One thing we've advanced here is to have good forage insurance systems that allow us to compete head to head with our annual crop neighbours who have really solid protections around crop insurance.

The other one is cattle price insurance. That will help to backstop the profitability of the beef sector, which keeps cows on the landscape and keeps those grasslands intact.

● (1715)

[*Translation*]

Mr. Yves Perron: Mr. MacLeod, if land is being converted for other uses, it's because it is more profitable for farmers.

Wouldn't rewarding farmers in some way for maintaining grasslands make a difference?

[*English*]

Mr. Cedric MacLeod: Yes, absolutely, and I think that idea has been raised in a number of the presentations. The significant value that those grasslands bring to the table for all Canadians needs to be recognized and firmly embedded in policy, and so you're correct. You know, there is a discrepancy in the profitability index on canola or wheat or corn or soybeans versus that on maintaining grasslands, so that needs to be addressed.

The financial incentive to cover that gap and recognize those EG&S values that the grasslands are bringing for all Canadians would be an essential contribution, for sure.

[*Translation*]

Mr. Yves Perron: Mr. Thoroughgood, could the same principle be applied to your remnant habitats and wetlands?

[*English*]

Mr. Paul Thoroughgood: Absolutely. One of our points was about the idea of getting the data to monetize the values that those lands do produce, because right now they're effectively being produced at no charge by the agriculture sector and other landowners. We're pretty strongly convinced that if there were a monetary signal to protect habitat on your land and produce those environmental values that, much as farmers and ranchers produce grain and beef and that sort of thing, they would also produce those environmental values.

[*Translation*]

Mr. Yves Perron: Ms. Stroeve-Sawa, on a similar note, you said earlier that you also need to recognize how the land was used in the past.

If we start by measuring the environmental performance of the land and encouraging people who are making or have made efforts to do so, I imagine you would look favourably on that.

Wouldn't you?

[*English*]

Mrs. Andrea Stroeve-Sawa: Thank you.

As I said before, recognizing the work of the people who have come before, we've been grazing grassland for 35 years and have seen an increase of 3,862% on our stock days per acre and an organic matter increase of over 6%.

Those things are quantifiable, but there's no reward for them. I personally am surrounded by cultivated land. I have four quarters that surround my land right now that have been cultivated in the last five years, and it's hard for us, for grassland, to compete with very high-value crops such as pumpkins and onions. Those are all very necessary, but it makes it really hard to justify the grassland when you're surrounded by very high-value crops that are getting very high return.

So monetizing that would be very beneficial, and monetizing the carbon that we are actually sequestering and holding within our grasslands is very important.

[*Translation*]

Mr. Yves Perron: Obviously, it could also prevent land conversion.

You mentioned a methane-reducing product that hasn't been approved in Canada.

If you had one recommendation for the committee about this, what would it be?

[*English*]

Mrs. Andrea Stroeve-Sawa: I would recommend clearing the regulatory pathway for feed additives to receive an environmental claim, and [*Technical difficulty—Editor*] easy because it goes into a drug approval pathway that's very time-consuming and costly. If we could kind of streamline that and make it go into the feed additive pathway, it would be highly beneficial and would allow these types of products to be registered by CFIA as feeds and not as veterinary drugs.

● (1720)

[*Translation*]

Mr. Yves Perron: Thank you very much.

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

I gave you 15 seconds more to make up for the technical difficulties we had earlier.

Thank you very much, Ms. Stroeve-Sawa.

Mr. MacGregor, you have the floor for six minutes.

[*English*]

Mr. Alistair MacGregor: Thank you very much, Mr. Chair.

I really do thank all of our witnesses for helping to guide our committee through this study.

Mr. MacLeod, I'd like to start with you.

Australia, by June of this year, is going to initiate a national soil strategy action plan that is going to commit the country to a 20-year course. That strategy is going to involve increased soil advocacy and extension services. They're going to try to improve soil monitoring and data sharing. They want to increase investment in soil research and development. They want to improve the communication and collaboration among researchers, landholders, industry, government, first nations peoples and educators. They want to give greater support to land managers to change practices to improve soil health, and they also want to increase focus on education, training and accreditation career paths for soil professionals.

First of all, what is your reaction to what Australia is doing? They have a federal system like ours. They have their national government in Canberra and they have state governments. Do you think that's an example that Canada could do well to follow?

Mr. Cedric MacLeod: The answer is a resounding “yes”.

As a soil scientist by training and education, I fully support all of those initiatives being undertaken by the government in Australia.

With what we've seen in Canada over the last couple of years with the living labs initiative that's been rolled out by Agriculture and Agri-Food Canada, and a more clear linkage between the grower community and Ag Canada researchers, and a focus on extension and BMP adoption, I think we've started down that path.

The other piece that I would mention is the new on-farm climate action fund that has been announced. There is strong support for that, where we put dollars in the hands of growers to advance the kinds of practices that Andrea and her farm team have been doing for 35 years, taking that example and supporting others to adopt those BMPs. Part of that program is focused on producer education and outreach to educate on BMPs, so yes, let's keep that going.

Mr. Alistair MacGregor: Okay, thank you very much. I'll turn to the Canadian Roundtable for Sustainable Beef.

I was very lucky in summer 2020 to be invited by the cattlemen in British Columbia to tour two ranches in the southern Okanagan that had won sustainability awards for their pioneering rotational grazing methods. It was really amazing. I was touring the actual grasslands that they were managing, and they were showing me the real differences between lands that had been intentionally rotationally grazed upon by their stock, and others that hadn't, and just that very symbiotic relationship that exists between plants and animals. The reason the Prairies were such an amazing place is because you used to have herds of bison, and that relationship is incredibly important.

However, there is a difference in how cattle management practices are in Canada. I'm just wondering, in order to encourage those best practices, what more you would like to see the federal government do. I know you've touched on this, but would you take some time to expand on that a bit more?

Mrs. Andrea Stroeve-Sawa: I love that you got to go and see some grazing. That's wonderful.

I think the research that needs to be funded is the research that helps us better understand land conversion and a balanced research portfolio that supports both industry emissions and carbon sequestration and the value of that.

I think investment in technology transfer is also very important, because in the end that research needs to be delivered to us as producers on the ground, and we need to be able to use that.

I hope that helps and makes sense.

● (1725)

Mr. Alistair MacGregor: On the earlier question I asked to Mr. MacLeod about following Australia's example, do you see value in Canada trying to adopt a national soil strategy?

Mrs. Andrea Stroeve-Sawa: Absolutely, unequivocally, yes, for sure.

Mr. Alistair MacGregor: Thank you for that.

Mrs. Andrea Stroeve-Sawa: I think Australia has been shown to be a leader in measurement of carbon sequestration and soil health. The health of the soil is where the rubber meets the road, so to speak, and if we don't have healthy soils, we can't produce any type of crop then. Those foundations of soil health and the soil health principles are absolutely where we need to go.

Mr. Alistair MacGregor: Thank you.

My final question is to Mr. MacLeod.

What's the public's role in conserving our grassland ecosystems, and what do you think we can recommend to the government to encourage that?

Mr. Cedric MacLeod: We're seeing additional investments in opportunities to secure those lands through conservation easements or other mechanisms. We're seeing the encouragement of private industry coming in to invest in similar mechanisms for securement.

Some of the programs have been mentioned. Paul had mentioned the Greencover program, and there was some encouragement for the re-establishment and maintenance of those grasslands—all key project ideas.

I think it's public recognition and supporting the awareness of the Canadian public on the role that grasslands play and of the real treasure that farmers and ranchers who steward these lands are protecting. I really don't think there's a general recognition of that. We could—

The Chair: Thank you, Mr. MacLeod. Thank you, Mr. MacGregor. We're glad we were able to get that on the record.

I'm going to go back to Mr. Barlow's motion. My understanding is that unless there are any concerns, we can pass that right now.

Mr. John Barlow: Thanks, Mr. Chair.

It sounds like we have the unanimous support of the committee, and I'm happy to just move ahead with it.

The Chair: Perfect. It's my understanding that we don't need a recorded division, so we'll move forward on that basis.

(Motion agreed to)

The Chair: Colleagues, we're getting close to time here because of some of the delays.

Here's how we're going to do it. I'm going to take 10 more minutes, with three minutes to the Conservatives, three minutes to the Liberals, and two minutes for the NDP and the Bloc. I'm going to use my discretion, and that's how we're going to close.

Mr. Barlow, it's over to you for three minutes, please.

Mr. John Barlow: Thanks, Mr. Chair.

It's great to see some of the stars of the *Guardians of the Grasslands* documentary with us today.

Kristine, it's good to see you. I know you haven't had a chance to speak, but I'm very proud of that documentary that was filmed in my riding.

I would encourage anybody on the committee to take a moment to watch that if you have not done so.

Part of the idea of this study is to identify definitive things that we can do to highlight what agriculture has done and is doing, and certainly things that we can do to improve. The 3-NOP program or product seems like a no-brainer, and I just want to go back to that really quickly.

The EU is usually very risk-averse and doesn't like to use any of these types of products. For them to have it approved before us.... I understand it could be two or three years yet until it's approved for use in Canada.

Andrea, can you maybe tell me why it's been assessed as a veterinary medicine and not as a feed additive in Canada? What was the reason it went that way?

Mrs. Andrea Stroeve-Sawa: Maybe.

I think that is the way.... As far as I understand it, when we add anything as an additive to feed, it's considered a drug.

Monica, do you know anything more than I do?

Mrs. Monica Hadarits: I can just add quickly that the only pathway that companies have to date for these types of products is through a veterinary drug submission with Health Canada. There is no other pathway that exists right now within our system in Canada.

What we're recommending is that a feed pathway be developed that would allow for the registration of these types of products. One that we're flagging right now is 3-NOP, but there are other products that will be coming down the pipeline as well. That feed pathway through CFIA would be a really great opportunity to get those products registered in a more timely manner.

● (1730)

Mr. John Barlow: Thanks, Monica.

I know there was a pretty intense study done on this product, specifically at a Nanton feedlot, about 15,000 head, if I remember.

Is it possible to put this in perspective? When we're talking about up to an 80% reduction of methane, if we think of two more years of not having approval of this product, what does that mean in terms of the methane going out into the atmosphere that would maybe not have been a problem? Do you have the data that goes along with that 80%? What does that mean in terms of either tonnage of methane or...?

Mrs. Andrea Stroeve-Sawa: I'm going to defer to Monica on this one because she knows more data than I do.

Mrs. Monica Hadarits: I don't have the data on hand, but it's certainly something that.... We can run the scenarios, and circle back, for sure.

Mr. John Barlow: Could we have something definitive that we can wrap our heads around?

The Chair: Certainly, I would be interested in that as well, Ms. Hadarits.

Thank you, Mr. Barlow.

Thank you to our witnesses.

Mr. Turnbull, it's over to you for three minutes.

Mr. Ryan Turnbull: Thanks, Mr. Chair.

Thanks to all the witnesses for being here today. It has been a really engaging discussion.

I want to go back to the topic of ecosystem goods and services.

I'm wondering, Mr. Thoroughgood, if we can maybe start with you on this.

What would you envision we would need to build a comprehensive approach to ecosystem goods and services?

Mr. Paul Thoroughgood: That is a good question. Thank you for that.

I think an important first step is quantifying what goods and services are associated with which land uses, land management systems and that sort of thing, so that we can build a playing field that purchasers who need to buy credits for an environmental good or service can feel confident in. It's also so that landowners can feel confident when they sell that good or service that they are providing exactly what they said they were. I think step one is data.

Step two—and I think an important role for government—is to build those protocols and approve those protocols so that industry and landowners can engage with confidence.

Mr. Ryan Turnbull: Thank you for that.

Mr. MacLeod, would you agree with what Mr. Thoroughgood just said?

Mr. Cedric MacLeod: Absolutely. That's part of the work we've done over the last five years at CFGA. We started with carbon and we're doing a bit of work on the biodiversity and habitat side—mostly around education, but we see that all the time. The data gap is what really thwarts us in moving some of these protocols forward quickly.

Mr. Ryan Turnbull: Thank you.

Go ahead, Mrs. Andrea Stroeve-Sawa.

Mrs. Andrea Stroeve-Sawa: I would absolutely agree. The biggest thing for us, from a producer's perspective—and maybe with a bit of my CRSB hat on—is that you can't control what you can't measure. Being able to quantify all of these things and measure them and know the improvement is key.

Mr. Ryan Turnbull: In your opening remarks, you mentioned having a “comprehensive systems view” of sustainability. Could you speak to that a bit more and maybe unpack that?

Mrs. Andrea Stroeve-Sawa: Personally, I think the biggest thing is.... There is no one silver bullet that's going to answer the sustainability issue within the beef sector. Every single one of us is so complex and so diverse. Just because *x* works for me, that doesn't mean it will work for someone else. When we look at it from a whole-systems approach, we look at every single management tool, making sure that we're always looking at the outcome. It's not necessarily about the “how” but about the outcome, because what I do on my farm could be very different from what my neighbour does on his farm right across the street from our farm—

The Chair: Thank you very much. We'll have to leave it at that.

Thank you, Mr. Turnbull. I might have set us up for that failure, but we're glad we got that on the record.

[*Translation*]

Mr. Perron, you have the floor for two minutes.

Mr. Yves Perron: Thank you, Mr. Chair.

Ms. Stroeve-Sawa, I really liked one of your comments. You said that what works for your farm might not work for your neighbour's farm.

What you're telling us is that, if we want the environmental performance measurement support program to work, it needs to be as decentralized as possible. Also, maybe the money should be available to the farmers, who are entrepreneurs. They should be the ones to decide when to invest.

Did I understand you correctly?

● (1735)

[*English*]

Mrs. Andrea Stroeve-Sawa: Yes. It needs to not be tied to one specific thing or one specific practice, so to speak. It needs to be tied to outcomes and things you are actually going to see on the land.

I don't know whether Monica needs to jump in here.

It just needs to not be tied to one specific practice. Farmers are so diverse, and even our land base across the road can be very different—

[*Translation*]

Mr. Yves Perron: I'm sorry to interrupt you, but I don't have a lot of time.

Would measures to stop or reduce livestock transportation be helpful?

For example, slaughter capacity could be increased in the regions or there could be a subsidy for that. Yesterday, a representative of Quebec abattoirs said they could have an incinerator on site to dispose of the waste. We know that transporting waste is very costly.

Could those be potential solutions?

[*English*]

Mrs. Andrea Stroeve-Sawa: I assume that was directed toward me.

Yes, waste is a concern. Most of us on our farms are dealing with that in very different ways. It may be something that would work for someone, but not necessarily for me. We use our feedlot as an upcycler and we produce thousands of tonnes of compost from our feedlot.

[*Translation*]

Mr. Yves Perron: Thank you.

[*English*]

The Chair: Thank you to you both.

Mr. MacGregor, I will ask you to close it out.

Mr. Alistair MacGregor: Thank you, Mr. Chair.

For the two minutes I have, I will turn to Mr. MacLeod.

Mr. MacLeod, in your opening statement, you posted some impressive figures for Alberta and Saskatchewan on the value of the ecological services that their grasslands and forage space provide. What I am wondering is.... I think those ranges are there because we don't yet have enough data. We've heard from many witnesses that there is a data gap and that's certainly an area where the federal government can step in.

Do you have a sense of how much more capacity we could have, or the increased value those ecological services could have, if we implemented some of the amazing measures you have been referencing to the committee?

Mr. Cedric MacLeod: I think it's hard to estimate (a) what the volume of those benefits would be and (b) what the value is, because we don't have a defined market mechanism to help us assign value to that—outside of carbon. We have seen the price on carbon. That is probably one of the easiest EG&S values to quantify. Although it's not easy, it's probably the easiest in the bunch.

I would suggest that what we can do in Canada is be better at collaborating. I think too often the research that's done is a little bit too vertical. It needs to be more horizontal. We need to learn to share datasets more effectively, because we are much more powerful together. Just having bits and pieces of the story sitting next to one another—that doesn't help us shape the market mechanism that we need to truly maximize the value of EG&S.

Mr. Alistair MacGregor: Thank you very much.

The Chair: Thank you, Mr. MacGregor.

On behalf of all the members of the committee, I'd like to thank you, witnesses, for your testimony. I can say that it was truly fascinating. We really appreciate your information and your guidance here today.

Colleagues, we're going to wrap it up there. Remember to get your recommendations vis-à-vis the supply chain to the analysts tonight, please.

I would add just one quick note. Not to nag you too much, but during the votes, because we have the ability to vote virtually, if you are so inclined, we would always welcome the fact that if you could vote from the committee room, that would mean that we could get moving quicker. I'll leave that to your discretion in the days ahead, if possible, to help us.

With that, enjoy your weekend and enjoy the rest of your week.

Thank you to all.

ENVIRONMENTAL CONTRIBUTION OF AGRICULTURE AND SOIL HEALTH

Opening Statement to the House of Commons Standing Committee on Agriculture and Agri-Food

March 28, 2022

1201-350 rue Sparks Street, Ottawa, Ontario K1R 7S8 613.230.9881
Representing Canada's plant science industry | Représentant de l'industrie de la phytologie du Canada

Mr. Chair, Honourable Committee members;

My name is Dr. Justine Taylor and I am the Director of Stewardship and Sustainability for CropLife Canada. Joining me today is Ian Affleck Vice President, Biotechnology.

There is clearly a global imperative to address the issue of climate change and agriculture is poised to contribute positive sustainable outcomes, not only for the environment but also for food security and the economy. A key element in the success of Canadian agricultural has been the adoption of innovation. We believe innovation will be critical to furthering sustainable development both in Canada and internationally and that will form the basis for our comments today.

Canada's Global Standing in Sustainability

It is important to put Canadian agriculture in a global context. Agriculture accounts for eight percent of Canada's greenhouse gas emissions, as compared to 23% globally. Today's Canadian farm can produce twice as much output as 50 years ago, using the same total inputs.

While production has increased significantly, total emissions from Canadian agriculture have been relatively stable for twenty years, resulting in a decrease of GHG emission intensity of 50% between 1997 and 2017, as compared to a 36% decrease for the economy as a whole.

The Role of Innovation in Improved Sustainability

We believe that innovation will be key to the ongoing success of Canadian agriculture in the face of a changing climate. Advancements in biotechnology and crop protection products have helped make the seeds we plant resilient, effectively fighting off competing weeds, insects and diseases to ensure a productive harvest. New innovations in this space have made pesticide use in Canada more efficient and when combined with precision agriculture allow farmers to be more targeted than ever in their pesticide and crop input applications.

Preserving Biodiversity

Given the increased productivity Canadian farmers are now able to achieve, we estimate nearly 34 million acres are maintained in a natural state preserving wildlife habitats and biodiversity. Without plant science innovations farmers would need 44% more land to produce what they do today[3]. Far from being a threat to biodiversity, modern agriculture is one of the solutions to protecting it.

Reducing GHGs and Improving Soil Health

Modern agricultural practices are helping to reduce greenhouse gas emissions and address climate change concerns. No-till and conservation tillage practices have helped to sequester carbon in the soil, preventing 16.5 billion kgs of CO2 from being released between 1996 and 2018.

Canadian farmers continue to increase their no-till acres with 58% of our 33 million crop land acres being no-till. Reduced fuel use as a result of no/low tillage practices has prevented 3.3 billion kgs of CO2 from entering the atmosphere between 1996 – 2018. Without plant breeding innovations like herbicide tolerant traits and the active ingredient of glyphosate, this progress would not have been possible.

In addition, no-till systems can reduce soil runoff by 79% while also increasing plant nutrients in the soil. More than 80% of Canada's farmland is now at a very low risk of soil erosion – a large improvement from forty years ago when soil erosion was a significant issue.

Lastly, no/low tillage practices increase organic matter in the soil and show a 71% increase in soil microbes.

Continuous improvements

While we are proud of the progress that modern Canadian agriculture has made, we are not stopping here in our support of sustainability. There are ongoing investments and continuous research into new biopesticides, precision agriculture, and gene editing. Gene editing is a particularly exciting field, as advancements will make it possible to create new varieties more resistant to climate change and more able to feed a growing global population. We believe that Canada can, and should be, an agriculture technology hub for much of this research and development.

Recommendations

In order to further improve the sustainability of Canadian agriculture, we need a clear commitment on the part of the government of Canada to work with industry and to establish a regulatory climate that facilitates and rewards innovation.

Our recommendations are the following:

1. **Focus on regulatory modernization as a tool to encourage innovation.** Our industry needs a regulatory system that is prompt, predictable and science based so we can continue to advance agricultural sustainability. Regulatory oversight for agriculture is interwoven between many departments and a whole of government approach must be embraced and realized.

2. **Incentivize and reward efforts by Canadian farmers.** Canadian farmers are world leaders in the adoption of technologies that enable the sequestration of carbon. However, at present, those efforts are not recognized by government policy.

3. **Promote and defend Canadian sustainability.** We would like to see the government of Canada promote the sustainability success story of Canadian farmers on the world stage, and ensure that it is recognized in all international forums and negotiations.

4. **Support exports by promoting science-based trade rules**. We ask the government to better use international mechanisms and institutions to ensure science-based, predictable and transparent trade rules for agriculture. We are at risk of non-science-based decisions in export markets impacting the adoption of innovation in Canada and jeopardizing our progress on sustainability.