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Chair

Mr. Pat Finnigan

Standing Committee on Agriculture and Agri-Food

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• (1530)

[Translation]

The Chair (Mr. Pat Finnigan (Miramichi—Grand Lake, Lib.)): I want to welcome you all to this meeting of the committee.

[English]

I would like to welcome a new member, Mr. Earl Dreeshen, to our committee. It's good to have you here.

You're from which region, again?

Mr. Earl Dreeshen (Red Deer—Mountain View, CPC): Red Deer—Mountain View. There is lots of farming out there.

The Chair: I think everybody else is the same. I know I have to introduce the clerk.

[Translation]

Ms. Ariane Gagné-Frégeau is our new clerk.

We are going to hold an election first, since we need a new second vice-chair. Ms. Brosseau used to be the second vice-chair.

[English]

Mr. Francis Drouin (Glengarry—Prescott—Russell, Lib.): I'm not sure if we want to vote for...

The Chair: There is no time for campaigning. This is at the ballot box right now.

We're going to have to elect a new second vice-chair. I will leave our clerk to go through the procedure.

[Translation]

The Clerk of the Committee (Ms. Ariane Gagné-Frégeau): Pursuant to rule 106(2), the second vice-chair must be a member of the opposition, from a party other than the official opposition.

I am now ready to receive motions for the position of second vice-chair.

[English]

Mr. Pierre Breton (Shefford, Lib.): I nominate Mr. MacGregor.

[Translation]

The Clerk: It is moved by Mr. Pierre Breton that Mr. Alistair MacGregor be elected as second vice-chair of the committee.

(Motion agreed to.)

[English]

Mr. Francis Drouin: A good Frenchman.

The Clerk: I declare the motion carried and Alistair MacGregor duly elected second vice-chair of the committee.

Some hon. members: Hear, hear!

The Chair: At this stage we shall suspend to resume in camera our business part.

[Proceedings continue in camera]

• (1530)

_____ (Pause) _____

• (1625)

The Chair: Welcome back to the second hour of our climate change study.

With us from the Canadian Cattlemen's Association we have Andrea Brocklebank, executive director of the Beef Cattle Research Council. Also, by video, we have with us Fawn Jackson, manager, environment and sustainability.

Thanks to you both for being here.

To give us a bit of direction, I'm going to read the motion about what we're trying to do. I've read it with the committee before, but I'll just make sure we're focused on what we're trying to achieve.

Part of the motion is on "how the government can help the Canadian agriculture sector better adjust to the increasing severity of issues associated with climate change and better address water and soil conservation issues". I know that's quite broad, but it will just make sure that we're focused.

We will start with a statement from you, Ms. Brocklebank. We might have more time than we usually have, but usually it's a seven-minute presentation. The floor is yours.

• (1630)

Ms. Andrea Brocklebank (Executive Director, Beef Cattle Research Council, Canadian Cattlemen's Association): Thank you for the invitation to speak to you today. My name is Andrea Brocklebank, and I'm the executive director of the Beef Cattle Research Council. I'm joined by Fawn Jackson, who is the environmental and sustainability manager for the Canadian Cattlemen's Association.

My family operates a cattle operation in southern Alberta and Fawn is in Manitoba. The location of the majority of cattle operations in areas with comparatively poor soils, low rainfall, and uneven terrain makes raising cattle challenging. Building resiliency to changing climatic conditions is second nature to producers. It's an area that we have long focused on, and we will continue to do so.

Today, the Canadian beef industry has a tremendous opportunity to expand. This is exciting not only for our producers but for the 228,000 Canadians who work within our industry. This is also exciting for the conservation community, which understands that more cows mean more grasslands and more habitat for wildlife.

Our ability to expand will be contingent upon long-term investments in research and sound public policy to ensure our industry's resilience. The BCRC funds research to improve the competitiveness and sustainability of Canada's beef industry. We have administered two beef science clusters and are currently awaiting a decision from Agriculture Canada on our third science cluster. Continued investments in research are critical to developing solutions to the challenges presented by climate change. I'd like to give you two examples.

First, Canada's cold winters have prevented many parasites and animal diseases from surviving and becoming endemic here. Climate change threatens animal health and welfare, and research has shown that disease-bearing parasites are expanding their ranges.

The dog tick can carry the bacteria that causes anaplasmosis, which results in abortion, anemia, and severe productivity losses in cattle. This tick used to be found in southern Manitoba and eastern Saskatchewan. Recent research has found this tick farther north in Manitoba and as far west as Alberta.

Widespread ticks will make it much easier for anaplasmosis to spread. This is only one example of the animal health and welfare implications of evolving parasite and disease profiles associated with climate change. Investments supporting surveillance and alternative treatment strategies will be important in understanding animal health risks, as well as strategies to mitigate these risks and maintain animal health and welfare.

Second, we know that demand for food is growing globally and that Canada can play an important role in meeting that demand. This is not an easy task given that climate change could negatively impact productivity at a time when we need to improve productivity. Climate change is expected to result in greater climate variability, which includes extreme weather events and more frequent occurrences of regional climatic conditions that are too hot and dry or too cool and wet. Climate variability increases the risk of crop failures and, as a consequence, more land may be allocated to pastures, which are less susceptible to periodic stress than annual cash crops. Even on these resilient landscapes, though, losses in productivity and ecosystem health can happen very quickly, while improvements are usually made very slowly and over a long period of time.

Consequently, investing in forage and grassland research is critical not only to maintain but to enhance productivity, focusing on enhancing resilience to drought, waterlogging, heat stress, and frost, while at the same time preventing soil erosion, protecting soil carbon, and preserving moisture. In building resilience to climate change, government can play an important role through research by fully funding the proposed third beef science cluster. Furthermore, we recommend the funding of the smart agri-food supercluster, investing in long-term, higher-risk discovery research, and investing in critical research infrastructure and capacity.

To change over from research investments to policies that support resilience, the CCA has three main areas of recommendation.

First, continue and expand investment in disaster response programs. With climate change, the risk of severe weather events increases. Droughts, floods, and other extreme weather events significantly impact the economic and environmental performance of our industry. As these risks increase, it is imperative to have tools available to help manage financial risk for our producers. CCA believes there needs to be sufficiently funded national agriculture risk management programs that are delivered consistently across all jurisdictions.

AgriRecovery has been delivered in several areas in Canada and has helped producers sustain their business after weather-related disasters. However, there is room for improvement, including the creation of clear triggers and reference materials regarding what the program will and will not cover. Historically, AgriRecovery's dependence on political decision-making during a disaster has compounded confusion in challenging times and has made planning for disasters enigmatic for producers.

• (1635)

Second, invest in forage insurance. While the CCA understands the benefits that an ad hoc national blanket framework provides, government should consider the different types of risk that are unique to each agriculture sector. For the beef industry, improved hay and forage insurance that includes a mechanism to help producers account for increased feed prices during times of shortages could potentially replace some of the calls for AgriRecovery responses. The CCA encourages both federal and provincial governments to continue to work towards implementing AgriInsurance recommendations made by the FPT forage task team.

Third, increase investment in infrastructure that supports the long-term mitigation of disasters. The construction of improved water management infrastructure such as irrigation systems and flood structures, including dams and outlets, are examples of worthwhile projects.

In closing, we recommend that primary agriculture and meat and food processing be exempt from carbon pricing. Do not confuse this request with a lack of environmental commitment. It is just not right the tool for the beef industry. The greenhouse gas footprint per kilogram of Canadian beef is half the global average and has fallen by over 15% since 1981. These improvements are the result of research, innovation, and appropriate policies, such as those we've mentioned today.

Thank you for your time. We'd be happy to answer any questions.

The Chair: Thank you, Ms. Brocklebank.

Seeing that our other witnesses have not arrived, we'll start the question round. For six minutes, we will have Monsieur Berthold.

[*Translation*]

Mr. Luc Berthold (Mégantic—L'Érable, CPC): Thank you very much, Mr. Chair.

Ms. Brocklebank, thank you for your very instructive presentation.

When you think of cattle producers, you don't necessarily immediately think of the consequences of climate change. We forget that cows are animals that have to be fed. We don't think about fodder or a whole host of other things. I thank you greatly for having raised these matters.

If committee members permit, especially since we will probably have a bit more time today, I would like to give the floor to Mr. Dreeshen, who is a new member of the committee. Since this is Bell Let's Talk Day, which is in support of mental health, Mr. Dreeshen has a fine proposal to submit to the members of the committee.

I will let Mr. Dreeshen make his request.

[*English*]

Mr. Earl Dreeshen: Thank you very much, and thank you, Mr. Chair and all committee members.

There's a serious issue that is taking place, and I felt that since this is Bell Let's Talk Day, I would like to present a notice of motion. I would like to read it into the record.

I don't have it in as good a form as I would like, so I will read it carefully into the record: "that the committee consider undertaking a study on the mental health challenges that our farmers, ranchers, and producers face; that this study meet with farmers, ranchers, producers, and community health groups with the goal of understanding the issues they face and the sharing of best practices; and, that the committee report its findings to the House".

I realize that there's a 48-hour time frame for discussion on this, unless, of course, one were to have unanimous consent to waive that 48 hours. I will leave that with the committee.

Again, when you take a look at the added stress that there is in agriculture and the concerns that are there, you can see so many people who are doing so much work in this area. Certainly, I know that The Do More Agriculture Foundation has presented information in just the last couple of days. Also, we can go back to many groups that are talking about the concerns for the mental health of

agricultural producers. I would like to leave that on the table for discussion.

Again, perhaps I could ask for unanimous consent to waive the 48 hours. I guess I will do that, but you may want to have a discussion on this.

• (1640)

The Chair: Do we have unanimous consent to waive the 48-hour motion at this time?

Mr. Francis Drouin: May I make a comment?

[*Translation*]

The Chair: Yes, you have the floor, Mr. Drouin.

[*English*]

Mr. Francis Drouin: It's certainly an issue that Jean-Claude Poissant has been very passionate about, so whether we waive the 48 hours or not, we're still going to be here on Monday. Maybe we can discuss that on Monday.

On our side, I know that we'll be extremely supportive. I know that Jean-Claude's eyes lit up when you talked about that. It's an issue that's been big in Quebec, and I know there was an article today—I think on CBC—with a farmer in Edmonton who mentioned it. We just want to discuss it with you further at some other point, but good job.

[*Translation*]

The Chair: Do you have any comments to add, Mr. Poissant?

Mr. Jean-Claude Poissant (La Prairie, Lib.): Yes. Thank you, Mr. Chair.

You may already know this, but I worked in the mental health field, in connection with producers. In the past, I was the president of an association in Quebec.

This is indeed a topic we should look at. However, I would like us to define our approach in that study in greater detail. I suggest that we postpone this till our next meeting.

The Chair: Are there other comments?

Mr. Berthold, you have the floor.

Mr. Luc Berthold: Since today is a day dedicated to mental health in Quebec and Canada, I found Mr. Dreeshen's idea very timely. Normally, we would need 48 hours' notice, but in light of the circumstances, Mr. Dreeshen had this idea today, and I think it's important that we be able to discuss this.

We are asking that the committee meet with farmers, cattle producers and groups who work in the mental health field, and that it do a study on this topic. Normally, the motions are not very long, and we determine the direction and details of the study in question later.

It would be a good gesture on the part of the committee if it adopted this motion today. We could all announce on social networks that the committee will be undertaking a study on producers' mental health, and next week, we can pin down its direction and content. I see no problem in our supporting this unanimously. We can pin down the specifics of the study later. If we are unanimous, no party will take advantage of this.

The mental health of producers and breeders is of concern to all of us. That is what is behind Mr. Dreeshen's motion.

I heard Mr. Poissant's comments, but I think that we could very well adopt the motion unanimously and define the framework of the study later.

[*English*]

The Chair: Mr. MacGregor.

Mr. Alistair MacGregor (Cowichan—Malahat—Langford, NDP): Thank you, Chair. I will enthusiastically speak in support of this motion.

I've just come from the justice committee, of which I was a member last year. The justice committee is in the middle of wrapping up a study on mental health supports for jurors. We learned an incredible amount. Other than our military and our first responders, there are so many professions where mental health suffers.

As we have this discussion, especially in terms of the significance of this day, I think it's a worthwhile pursuit. By and large, farmers are tough folk. They're quite stoic and like to go it alone, but that's not a healthy approach, as we have learned.

I lend my support to this motion. Congratulations.

The Chair: Thank you, Mr. MacGregor.

Are there any other comments?

Mr. Drouin.

[*Translation*]

Mr. Francis Drouin: We have no problem with the motion. Whether it is adopted today or in 48 hours does not make much difference. However, I remind you that the committee will not be meeting before next week. Also, out of respect for our francophone friends, we need to get the motion translated into French.

[*English*]

The Chair: Mr. Longfield.

Mr. Lloyd Longfield (Guelph, Lib.): It's good to have a little time to talk about this, but I think we need more time to really flesh it out. I think it's a great thing to bring forward.

It also brings forward some gender issues. We should be looking at women farmers or women entering farming.

I think we need to flesh it out to get the right motion on the table and to have the right discussion around the motion. I think it's great to have the discussion on Let's Talk Day, and I think the timing is good to start the discussion. This is on the record, so we are discussing it, but I think we need to deal with the motion in a period of time when we can really sink into it, and get back to our witnesses....

• (1645)

The Chair: Thank you, Mr. Longfield.

Mr. Barlow.

Mr. John Barlow (Foothills, CPC): To Lloyd's question, I know we want to get back to the witnesses. I appreciate that, and we don't want to take up all our time. Can we support this in principle today

just to take advantage of Bell Let's Talk Day, which I think we all want to do, and then...? No? Okay.

The Chair: There is no mechanism that I know of unless we adopt it or, you know, push it back....

Mr. John Barlow: Okay.

The Chair: Are there further comments before we resume?

[*Translation*]

Mr. Luc Berthold: I ask that the committee unanimously adopt my colleague Earl Dreeshen's motion today. It's up to the committee to debate it.

The Chair: I will put the question to the committee.

Is there unanimous consent to adopt Mr. Dreeshen's motion today?

Mr. Francis Drouin: We need the French version of the motion.

[*English*]

The Chair: We don't have consent, but again you can forward it within 48 hours. Thank you.

At this stage, we shall resume.

[*Translation*]

Mr. Berthold, you have three minutes and ten seconds left.

Mr. Luc Berthold: Thank you very much.

So, back to work.

Ms. Brocklebank, please forgive this brief intervention. We did not lose any time, fortunately, since our chair understands the situation very well. I am sure you also understand that our farmers and breeders often grapple with difficult situations. All of the climate-change-related conditions we talked about cause a great deal of stress and anxiety every year for producers and the situation will become increasingly difficult because of the unpredictability of weather conditions. You referred to them in your presentation.

At the end, you made a brief recommendation on the carbon tax. Based on your experience, can you tell us how this tax may undermine our efforts to fight climate change?

[*English*]

Ms. Andrea Brocklebank: Fawn, do you want to answer that?

Ms. Fawn Jackson (Manager, Environment and Sustainability, Canadian Cattlemen's Association): For a highly traded product such as beef, the last thing we want to see is that we're pushing production to another jurisdiction that doesn't have the same level of performance as the Canadian beef industry does. Just as an example, for the Canadian beef industry, our greenhouse gas production per kilogram of live weight produced is about half, 50%, of the world average. We want to make sure that we're not pushing production somewhere else, and that we're supporting agricultural producers here in Canada. I think it's extremely important that not be confused with a lack of environmental commitment. It's just not the right tool for a highly traded product such as beef. The policies that Andrea has presented and our previous presentations on this topic put forward some really excellent areas that we know will continue to advance the production of very sustainable beef in Canada.

[Translation]

Mr. Luc Berthold: From the beginning of these studies, I have noticed something about the famous carbon tax. The government's current approach consists in not recognizing the efforts deployed over the past years by breeders and producers to reduce their environmental footprint. They act as though producers and breeders were not aware of their environment. And yet, since I began to work on this file, I never met anyone who has more love for their land, their field and their territory than farmers and breeders. They want to take care of it and they hope that things will last. They are probably the people who are the most aware of this reality.

Have you determined, in percentage terms, what difference would be sufficient to put Canadian beef at a disadvantage, as compared to beef in other countries, as concerns the carbon tax? Have there been any studies or analyses done on that?

The Chair: Unfortunately, your time is up.

Mr. Luc Berthold: That was a very good question.

The Chair: I know, but we can certainly get back to it.

I now give the floor to Mr. Longfield.

• (1650)

[English]

You have six minutes please.

Mr. Lloyd Longfield: I would like to shift my time over to Mr. Drouin, and then maybe I could trade spots with him, because the conversation is in an area where I know he has some passion and interest.

Mr. Francis Drouin: We're trying to keep people confused today.

Thanks for being here, and thanks for making it in this weather. Unfortunately we've seen the results of the weather for other folks.

I have a quick question, Andrea. If you can, talk to me about some of the projects and the partnerships that the CCA has done with other partners. I'm actually thinking of one in my own riding with Ducks Unlimited, in which the beef industry has partnered with Ducks Unlimited and they're creating a sustainable model for beef farming. Can you elaborate on that? Are you aware of that project?

Ms. Andrea Brocklebank: I'll let Fawn elaborate on that one, because she's more aware of the environmental partnerships.

Ms. Fawn Jackson: There has been a very large undertaking to join the conservation and agriculture communities, because there's a growing awareness. As Andrea mentioned, when there are more cows, there are more grasslands, more habitat for species at risk, and more carbon stored in the grasslands.

There are a number of initiatives under way. I know that Ducks Unlimited is extremely supportive of working with cattle producers on a number of different initiatives. For example, they do some extension work. They do some easement work. They have some land purchase programs, whereby land is put back into grasslands. As far as I understand it, they purchase cropland, put it back into grassland, and then put it back on the market with a no break/no drain easement on it.

There is an initiative called the Canadian Roundtable for Sustainable Beef, and I am very fortunate to get to work with them. We have membership from the World Wildlife Fund, The Nature Conservancy, Nature Canada, and Ducks Unlimited. There are a number of different projects under way at the CRSB to help build those relationships and that work between the conservation and the ranching and farming communities.

Mr. Francis Drouin: I'm not sure if you're aware, but last year when I spoke to Ducks Unlimited they were conducting a study on the impact that wetlands have on carbon sequestration. That was in partnership. I've walked around it; I've seen it with my own eyes. They use a gate system to ensure that beef graze part of the land and then move over once that part of the land is grazed. It's all very sustainable.

I'm just curious to find out if that study on the carbon sequestration and the role that wetlands play is available now.

Ms. Fawn Jackson: I'm not aware of the Ducks Unlimited study, but the Canadian roundtable has done work. There's also work at the University of Alberta. BCRC also has some work. I'd be happy to connect with contacts at Ducks Unlimited and get back to you.

Mr. Francis Drouin: Okay, and I think your colleague wants to speak.

Ms. Andrea Brocklebank: There's been data gathered for many years on carbon sequestration on grasslands. Researchers were gathering the data a long time ago.

For a long time, though, I think we were focused on production, to be honest with you. What we understand very much now, though, is well-managed grasslands. Grazing them continuously is actually better than just letting them stand, because it rejuvenates them. We're starting to understand that. I think one of the biggest things about forage and grassland research is that what happens in Manitoba can be very different from what happens in B.C. and Alberta. There are just different climatic conditions and different ranges.

What we're trying to do under the next beef science cluster is to do a better regional analysis as to carbon sequestration currently and what the best practices to maximize carbon sequestration across these different rangelands are. Given that the soil conditions are different and the climatic conditions are different, what you recommend in Manitoba may be very different. We are working very much in partnership with the researchers across this country and also with groups like Ducks Unlimited, which have their own research under way.

Mr. Francis Drouin: That's great.

We had a previous witness, Casey, from the national feeders' association, I believe, who was talking about some of the trade-offs that consumers have to understand, such as grass-fed beef versus grain-fed beef. Can you talk to me about some of the developments that are happening in that area, and about the role that government can play to inform consumers on some of these trade-offs that they might have to make if they put more emphasis on the environment or more emphasis on, I don't know, animal care, for instance?

• (1655)

Ms. Andrea Brocklebank: I think the important part to emphasize for grain-fed beef production is that in terms of the current production system in Canada, 80% of the animal's lifetime is spent consuming forage. There's this perception that the grass part is a small part, but it's not. It's a very significant part, even in our current production system, and there is a matter of taste preference by some for grass or grain, so we should provide both.

In terms of the extensive nature of the system, I think what we understand is that we tend not to focus on whether it's either-or, because what we know is that we can continue to make incremental improvements in both areas. We've done that in terms of reducing the greenhouse gas and the water footprints at feedlots and for cow-calf, and likewise in terms of our animal welfare measurements. A lot of the focusing we've done is really on just trying to communicate the overall safety and healthfulness of beef overall, and then also, in terms of the production system, maximizing both. I think we recognize, too, that in certain areas feedlots do help.

The Chair: Thank you, Ms. Brocklebank.

[Translation]

Thank you, Mr. Drouin.

[English]

Real farmers jump out of taxis and walk all the way. We're certainly glad to have you here, Mr. Bonnett. Are you alone? Oh, you have your partner also, Mr. Black.

Mr. Ron Bonnett (President, Canadian Federation of Agriculture): Yes, he's also with me.

The Chair: It's quite nasty out there from what I hear.

Mr. Ron Bonnett: It is, and apparently cabs aren't running that quickly. We decided we better go walking.

The Chair: That's great. We're glad you made it. The timing is fine. If you're not too out of breath, we'll give you the floor and you can give your presentation. You didn't miss a step.

Go ahead, Mr. Bonnett.

Mr. Ron Bonnett: That sounds good. Thanks again for the opportunity to present. It's good that I got my exercise before I came here.

First of all, I think looking into some of the challenges of climate change is very important. We have a written presentation that will be circulated to people, but I wanted to cover off some of the main points we have.

I know you have had a number of witnesses who have spoken to you in regard to some of the conditions agricultural production will need to adapt to in light of climate change, so I'm going to focus my comments on what we see as the major needs for agriculture producers in this changing climate.

Let me start by saying that farmers are inherently adaptive. We have a long history of embracing innovation through technology, education, and best management practices to improve environmental, economic, and social sustainability. This has led us to a strong record of continuous improvement and has made us one of the most sustainable producers of agricultural products in the world.

We have a need to understand, in greater detail than is presently available in many agricultural areas, how the climate will be changing. In fact, we still have growing areas in Canada that are not covered by weather radar. Understanding the changing climate will support agricultural producers who produce specific commodities or varieties best suited to their local agronomic and environmental conditions.

It should be noted that many of us have already made changes in response to the changing climate. I myself am growing varieties of crops that were originally developed far south of where I farm in northern Ontario.

Recently, much of the political dialogue and investment has focused on climate change mitigation at the expense of adaptation. As agricultural producers, we are concerned about the climate change impacts that are affecting us with changing precipitation patterns, increased variability, and more extreme weather events, including precipitation, drought, heat, or cold.

These lead to changing pest pressures, as we can no longer rely on cold winters as a natural pest deterrent; changing range patterns of local species; new invasive species; heat stress on farm animals; new growing regions; new varieties; and new crops. These pressures have all had an impact on soil and water conservation. In order to maintain resilience, we need a better understanding of the most appropriate adaptive actions relevant to our own operations.

British Columbia, for example, has made significant inroads in building adaptation within the agriculture sector through the BC Agriculture and Food Climate Action Initiative, which is jointly developed and administered with the agricultural industry. This program has conducted regional workshops that have brought together producers to develop adaptation priorities relevant to their own operations, local environments, and known expectations of the impact of climate change. This type of approach has led to effective and efficient tools and suggestions for improving the capacity for adaptation and resilience in their operations.

We need to build on this example so producers in other regions have similar access to this type of education. I know Manitoba will be releasing a report soon on adaptation efforts in its area.

We need governments to follow up with incentives and other supports necessary to take these adaptive actions. Leveraging best management plans through the environmental farm plan is one potential avenue to do so. I can speak from experience as I've used this program to access cost-shared funding for solar-powered watering systems for our cattle. This zero-emissions technology protects watershed quality by keeping cattle out of streams, which results in improved water quality and reduced soil erosion. There are many great examples like this that simply need the right incentives to spur adoption.

Adaptation needs to be mainstreamed into regular business decision-making for producers. However, we should recognize that in the short term adaptive actions that build resilience can sometimes introduce an element of redundancy and increased cost of production.

Adaptive investments can be difficult to make with thin margins, uncertainty over trade agreements, and rising costs from other government policies. As returns on investments for adaptation are often somewhat uncertain and not realized in the short term, we believe there's a role for governments to play in supporting the industry. In order to move quickly on adaptation, we need to develop concrete, specific actions that are supported by a strong outreach and educational component and that are relevant to the location and operations of agriculture producers.

● (1700)

This also includes new investments in research in order to improve modelling of the impact of climate change and on genetics in order to develop new varieties suitable to what our climate is and will be, not based on a historical average. Productivity improvements through genetics can also greatly reduce the amount of emissions per unit of product and may be one of the most tangible pathways to producing more food, fuel, and fibre for a growing and more affluent global population while also reducing emissions. We see the need to take a more holistic approach through climate-smart agriculture. This approach recognizes equally the need to increase yields through sustainable intensification, the mitigation of the impact of climate change, and the implementation of adaptation ideas.

Multi-stakeholder groups such as the agriculture adaptation working group, which is a member of NRCan's adaptation platform, have the scope to explore the issue, but not the support from federal government in order to conduct the research and analysis needed. We

also need to conduct further analysis on whether we have the right insurance products available in a changing climate. This includes ensuring that we are taking climate change into account in the ongoing business risk management review discussions to build an adaptive suite of public risk management programs.

In conclusion, our key recommendations are to work with producers in partnership to set research priorities; produce and disseminate the right tools to make the right adaptation decisions; inspire changes in management practices through incentives and program support; implement a cross-sector strategy to support a sustainable and resilient food system; and, invest in ecological goods and services programs to incentivize adaptation and address water quality and quantity.

We recognize that Canadian agriculture is a strategic sector of the economy that requires strategic investments in order to achieve our full potential of providing low-carbon food and agricultural products to an expanding global population while adapting to the impacts of climate change.

I look forward to your questions.

The Chair: Thank you, Mr. Bonnett.

Welcome, Mr. Straathof. You probably went through the same thing as your fellow seatmate there, so thanks for joining us. If you're ready, you can go into a seven-minute opening statement.

Mr. Tony Straathof (Board Member, National Farmers Union): First I'll apologize for showing up late, but it was quite the storm.

Mr. Ron Bonnett: We did too.

Mr. Tony Straathof: I'm going to do just a brief introduction first. I'm going to reach into the knowledge that I have from a number of projects that I've been working on over the last few years.

I was a contributor to the Ontario soil health strategy. I'm a member of the prison farm advisory panel. I provided a lot of input into the Ontario strategy to address climate. That includes the carbon tax and the rest of the subsequent regulations that are coming about.

I've attended meetings with the International Joint Commission, dealing mostly with Lake Erie, but they focus on all the watersheds that cross the two boundaries. I've participated a lot in the sessions leading up to the development of the Canada agricultural partnership for Canadian agriculture policies, which are coming in this year.

This is just background that I am using to develop my thoughts for today.

First of all, I would like to bring forth a bit of background so that you can understand where we're going to go. If we know where we are now, then we know how to develop a plan for where we're going.

A few years ago, and I think it was in 2014, Ontario was producing 165 million tonnes of carbon equivalent greenhouse gases. Of that 165 million, Ontario was sequestering 16.5 million, 10% of the carbon equivalence that was being produced.

Agriculture conceivably can double the amount of carbon that it's currently sequestering—agriculture in Ontario only. Those are the figures I have. When these numbers were established, Ontario at that time was sequestering 0.5 to 0.7. Even if Ontario doubles the capacity to sequester carbon, it is still only 1% of the total carbon that's being produced.

I realize that this session is strictly on developing a plan for mitigating climate change, but we have to realize where we are first before we can develop a successful plan that can measure how we can mitigate it.

Carbon sequestration in the soil is like adding water to a leaky bathtub. The more you put in, the more it will go out. The thing about carbon sequestration or greenhouse gases is that the more you put in, the faster it goes out as well. We have micro-organisms, we have fungi, we have bacteria that are constantly eating that organic carbon as it's coming in.

Even if we attempt to sequester carbon, which is almost impossible in getting to the level that we want, meeting what Ontario is producing, or even meeting what Canada is producing, we really need to see what we can do to effectively reduce the impact of these events that we're seeing now with the climate changing.

I think what we need to focus on is the soils. If we can have good, healthy soils, they will absorb more water in the case of an extreme weather event, and they'll retain more water in the case of a drought.

I'd like to talk a little about the extreme weather events that we are going to see. This past summer I believe I counted three events of over 100 millimetres of rain at one time. It used to be that 35 millimetres was an exceptional weather event.

We're seeing that the jet stream is stalling as it's moving from west to east. That means more precipitation for longer periods. That means also longer dry spells.

The key to mitigating these extreme weather events is soil.

Ron talked a lot about practices to enhance the soil capacity. We're talking about no-till; increasing buffer zones in water courses to reduce the runoff, to slow the runoff; forest cover; tree lines. But the key, the big thing here, is knowledge.

• (1705)

We have to know what practices we can employ to reduce the transfer of nutrients into the water courses, whether it's soil erosion, whether it's the nutrients in the soil. The way to do that is to increase the soil's organic matter, the carbon in the soil.

Enhancing the soil's capacity to mitigate the effects of extreme weather events needs to have an increase in soil carbon. It requires more energy, not less. We're seeing carbon taxes being imposed not only on all participants in our economy, but farmers as well. However, farmers need more energy, not less, and they need an encouragement to enhance these soils' capacity to mitigate the changes in extreme weather events. We're seeing the carbon taxes as

more of a stick than a carrot. If farmers are going to grow your carrots, they need carrots. We need more encouragement and a lot less discouragement. We need the methods and the knowledge to improve the soil.

I want to talk a little about—and this is where it ties into my previous experience—

• (1710)

The Chair: Mr. Straathof, I'm going to have to cut you off here. It's very interesting, but we want to get to some of the questions, and we're up to seven minutes.

Mr. Tony Straathof: I'm sorry.

The Chair: I'm sure you'll have the opportunity with the questions to go back to your notes.

We already started the round. We're now at Mr. MacGregor, for six minutes to the whole panel.

Mr. Alistair MacGregor: Ms. Brocklebank, I'll start with you and Ms. Jackson.

I have in my hands the January 22, 2018, edition from the Canadian Cattlemen's Association. A section here identified water as a precious resource. I saw that you've highlighted that you're mindful of and focusing on reducing the water footprint of the Canadian beef industry. That's really excellent to hear.

With the increasingly hot summers we have and the weather extremes that are leaving droughts in many regions of the country, which we know leads to breeding issues and reduced weight gain in beef cattle, how do you navigate the competing realities of weather extremes affecting herds while reducing your footprint? Can you put that in the context of this study, where we're looking to ultimately make a recommendation to the federal government on how we help here in this committee?

Ms. Andrea Brocklebank: For the study being referenced, we've measured that between 1981 and 2011, the beef industry has reduced its water footprint by 17%. For each kilogram of beef, we use 17% less water. Those gains were achieved through increased efficiency in animal health and reproduction, improved crop yields, growth weights, slaughter weights, those types of things. I think that also speaks to the fact those improvements in productivity are really important and play a significant role when things like drought stress impacts our industry. If you have more resilient forages and strong management practices, you're better able to manage through those situations in your grasslands. It's still not easy. I'll profess that two dry years in our area meant that most of the cattle that stay on our place until September left in July. That also points to the fact that cattle producers have to be flexible in their decision-making, which very quickly changes based on things. At certain points you have to manage for the long term, which means keeping your grass healthy for the next year.

I think what we're cognizant of in overall reductions is the route we're on to increase productivity is exactly the route to help deal with those issues. We just need to continue to do it: increase productivity, in the varieties of grass and grain we grow to feed the cattle, but also in the overall genetics of an animal. We recognize significant genetic variation across beef cattle. If we can reduce that and increase efficiency, we have tremendous opportunity.

Mr. Alistair MacGregor: That's fantastic to hear.

When you look at the prairies leading right up to the Rocky Mountains, and the fact that climate change affects the amount of water in the glaciers and the runoff from them, what's the long-term trend in how runoff in the spring means you might have less water to work with, which affects the watersheds of the surrounding regions?

• (1715)

Ms. Andrea Brocklebank: Keep in mind, especially in that area, that the majority of cattle production occurs in non-irrigated regions, so we're depending on grasses and what's there. What's there and how we manage it is the biggest thing and the biggest question.

I think what we are aware of is that there are certain regions where crop production has become highly risky due to climate variability, and as a result, that land is being converted to grass. That could be perceived as an opportunity for our industry, but it also shows the sensitivities of these lands, and you have to manage them very carefully. The degradation of two years of drought can take 10 years to recover, so that's the important part. It's not just that once the drought is over, cattle producers can increase stocking rates and move on. It takes significant time.

I think the biggest thing we're trying to do with producers, through research and also the extension work that we work with government on, is to help fund tools for them to understand the best management strategies on an ongoing basis, because that is changing what they're doing and how they're doing it.

Mr. Alistair MacGregor: Thank you.

Mr. Straathof, I was really glad to hear your opening statement on the importance of soil. My wife and I have a little three-acre property. We're on a bit of a hill, and we get incredible runoff every winter on Vancouver Island. We followed the contour lines and built swales, and we've noticed that does tremendous things for retaining the water over the drier summer months. I'm really glad to hear your expertise in that field.

I know you kind of ran out of time, so could you just expand a little bit more on what kind of carrots we should recommend rather than the sticks? I just want to allow you a bit more time so I can get your thoughts on that, please.

Mr. Tony Straathof: I appreciate it. Thanks.

When farmers are trying to do a plan, a lot of times there isn't quite enough knowledge. There is knowledge out there, but it's not in our hands. It's learning. However, if we have to learn something, we have to take time away from our operations; we have to travel. Even for me now, I'm travelling an hour and a half, two hours, and sometimes four hours to go to a session and then back home.

That's more of a stick than a carrot. We need to learn. We can't leave our operations, because there are repercussions to doing that.

When we're also talking about encouragement, even in my own operation I'm evolving into no-till. Most of my farm is no-till now. About seven years ago I was doing an awful lot of plowing. I was plowing almost exclusively. In a weather event, we'd see 25 millimetres, and I'd see grey creeks, with the water running into the creek.

The Chair: Unfortunately, Mr. Straathof, I'm going to cut you off again. I'm sorry.

Mr. Tony Straathof: Yes. I know how it is.

The Chair: I want to make sure we give a chance to everyone.

[*Translation*]

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

Mr. Jean-Claude Poissant: Thank you, Mr. Chair.

I want to thank all of our witnesses.

First of all, I want to congratulate producers. Reducing one's environmental footprint by 15% is quite a challenge. I know because I am a farmer myself. When we take steps to improve our farming operations, people often barely know about them, or they are not properly recognized.

Mr. Bonnett, you said earlier that we need some plans to support adaptation. That got my interest. Can you tell us more about that?

[*English*]

Mr. Ron Bonnett: I could give you several examples. It almost ties into Mr. MacGregor's question about how we adapt to where we're going.

The first thing we have to remember is that everything is local. What works in western Canada would not necessarily work where I am. Their issue may be drought. My issue this year was too much water.

What kinds of investments can we make? On our farm, we've tilled 300 acres in the last two or three years. It was the only ground I got crop off this year because it was so wet.

I mentioned the investments in solar water-pumping systems. By digging out old springs and having storage areas for the water that was there, we had water reserved and we put a solar pumping system in place to do that.

We're looking at experimenting with different types of crops. One of the things we've done for about the last six years is we've planted Sorghum Sudan grass, which is basically a tropical plant. It's a plant from which in the spring to mid-summer we get all kinds of forage, when we happen to get the dry periods, to carry over.

To answer your question about the types of supports, I think we need to have investments in research. We can look at some of the plants we can use. I think we need some support programs. People are going through environmental farm plans and doing some of the best management practices. Then we have assistance for the capital investments that sometimes take place. The other thing, which I think goes back to what Tony was talking about, is figuring out how we share best management practices between farmers.

• (1720)

[Translation]

Mr. Jean-Claude Poissant: Thank you very much.

My second question is for Ms. Brocklebank.

Climate change can provoke disasters from one day to the next that are due to Mother Nature, and we know that sometimes we will not be able to do anything. You spoke of the triggering factors for programs. Can you tell us more?

[English]

Ms. Andrea Brocklebank: The biggest challenge when a disaster happens, from a government perspective, is trying to envision what type of disaster and where it's going to happen, so I appreciate the difficulty. One of the challenges is that producers often have to make decisions very quickly, whether that's selling animals or adjusting feeding strategies, or fencing...you name it. That can be due to animal health and welfare, due to their own operation and their economics. In many cases, they have to put up cash very quickly. The challenge becomes uncertainty as to what's eligible for funding and what's going to be available; those types of questions make it very difficult. I don't want to bring it back, but that's the mental health stress producers have to deal with; it's right there.

What's needed is greater clarity as to the terms and reference materials available to producers—what they're eligible for, at least, as a starting point—as these programs are defined and as a disaster rolls out. Literally, producers have to make decisions in the days and weeks right after. Often, programs don't fully roll out for months.

[Translation]

Mr. Jean-Claude Poissant: Do I have a little time left, Mr. Chair?

The Chair: You have two minutes.

Mr. Jean-Claude Poissant: Mr. Bonnett, did you want to add something?

[English]

Mr. Ron Bonnett: I just have a brief comment on the idea of disaster. One of the things we've got to watch is that we don't necessarily always have to look at a disaster as a one-time event, whether it be a massive flood or a fire or something like that; sometimes it's a progression of events. Like I mentioned, this year, in many parts of Ontario, there was so much water I ended up going out and buying a bunch of different equipment so I could store feed that was wet, rather than normal dry hay. Sometimes a disaster is something that goes on gradually and you wouldn't have a disaster declaration. When you're looking at programs, there's a disaster side of it but there's also the investment side. How do you mitigate some of these changing conditions that come, whether it's a buildup of

rainfall where you can't even drive on the fields, or a drought where you don't have anything to harvest?

We've got to watch that we don't get caught up in the notion that a disaster has to be a one-time event. It can be a progression of events.

[Translation]

Mr. Jean-Claude Poissant: I have one last question that may be a little off-topic.

You also spoke about the increase in the cost of farming inputs. Have producers gotten together to make bulk purchases in order to lessen the consequences? In certain provinces, there are purchasing co-operatives and things of that nature.

[English]

Ms. Andrea Brocklebank: Definitely there are efforts to do that. The specific reference I made was relative to forages. A lot of the forage insurance does not account for the fact that if you have to use forage insurance and then purchase forage because it's come into effect, it has a cap on it. It doesn't really allow for the fact that usually, when you're purchasing forage, prices become quite high because there's a shortage. That's where it becomes a challenge, when a producer is faced with being unable to use their pastures and having to purchase forage. There's no current trigger. There are caps that don't allow for any kind of compensation. Forage prices can escalate quite quickly in a drought.

The Chair: Thank you, Ms. Brocklebank.

[Translation]

Thank you, Mr. Poissant.

[English]

Mr. Longfield for six minutes.

Mr. Lloyd Longfield: Thanks everybody for coming here in various snowshoes, snow machines, and other ways of getting here.

Mr. Bonnett, I wanted to pick up on the comments that you made around climate change research and genetics, and the adaptation working group at NRCan. There seems to be a funding gap that maybe we could address in our report as our recommendations come forward. On climate-smart agriculture, what could be done to help the governance, and the directions those types of groups could be bringing forward? There's very valuable information here. It sounds like there's a funding gap.

• (1725)

Mr. Ron Bonnett: Yes, there is a funding.... There are two things. First of all, I think, there's identifying what the research priorities are and fitting that into a climate-smart, agriculture-smart agenda identifying the priorities. We need to take a look as well commodity by commodity, because some of the research recommendations might be very different from the livestock sector than they would be from the crop sector. Identifying those priorities is critical. Even in the livestock sector there are new pests coming that we didn't see before, which are migrating north. We may not have the tools we need to address those pests, whether it's approval of pest control products or things like that. I think getting a clear identification of what the priorities are and then clearly identifying how we can flow that funding through some of the existing structures needs to be looked at.

The other thing I should mention is that the Canadian Federation of Agriculture is participating in a climate-smart agriculture initiative, North American-wide. Drew attended meetings in Washington earlier this year. Again, I was supposed to be there but snow kept me away. It seems to be a trend. I think it means looking at what is happening in other jurisdictions, tying in and making sure that there is adequate funding available, but also engaging the farm community in the discussion so that we really have a good handle on what the priorities should be.

Mr. Lloyd Longfield: I want to open up starting with you, Mr. Bonnett, and then maybe to the rest of the group. In 2013 we had a prairie shelterbelt program that was being run out of the prairie farm rehabilitation administration. It was cut off. Is that something we need to look? What types of programs have existed that we should maybe revisit, given the nature of climate change and the need to increase production and the pressure we have on pricing and carbon pricing?

Mr. Ron Bonnett: At the federal level, I think you'd likely have to leave some of the discussion and decision-making to the provincial level as to where the priorities might be. For instance, the prairie shelterbelt program might be one that works well, whereas in other areas of the country it might be something different. I think we have to recognize that with climate change and climate adaptation it's going to be different, depending on where you farm and what types of crops you are growing. There are a number of things that could be revisited. One of the things I would stress is that the environmental farm plan program, from what I've seen on our farms, was an excellent program. I know in the province of Ontario the funding has declined dramatically for that. I think more emphasis on cost-shared funding would help stimulate investment in mitigation measures and that would likely work across the country as well, but identifying the priorities should be very localized.

Mr. Lloyd Longfield: It sounds more like a carrot.

Mr. Straathof, from the National Farmers Union.

Mr. Tony Straathof: You're asking about the shelterbelts in the Prairies. In Western Ontario now we are seeing that where there are shelterbelts, if there is not the aggressive removal of trees, which we see in the sand-plain, that helps reduce erosion and holds back water

in the case of high-water events, and reduces the drying out of the soil.

Ron was talking about the environmental farm plan. Ontario does have a very good environmental farm plan. We've developed it over a number of years. It was developed to the soil and crop...but that environmental farm plan is not consistent across all the provinces. It really needs to be. It's really about farmer assessment. Farmers assess their own challenges and problems. If that environmental farm plan is not consistent across all the provinces with an oversight from the federal government—because it covers regions—with participation from the provinces, you're not going to have success, you're not going to implement the programs that you want. We really need to get it national.

Mr. Lloyd Longfield: Thank you.

Finally I'll go over to Andrea to talk about how this might tie in with the native grass reseeding programs that your group has been advocating for to try to reclaim some of the land lost due to erosion.

• (1730)

Ms. Andrea Brocklebank: We have an amazing extension network going on across our country relative to grassland management and a lot of it is producers talking to producers. Research is really important, but getting application and producers sharing knowledge are really important. Grazing mentorship programs, verified beef production plus, which looks at environment and production practices, all those types of things, are the really important part in terms of trying to move things forward. Those are the ways we can encourage change—through cost-sharing and those types of incentives—and really allow producers to take leadership. As we talk east-west differentials, even commodity differentials mean that the incentives for one are not necessarily the same for another.

Mr. Lloyd Longfield: Terrific; thank you.

The Chair: Thank you. This is all the time we have.

I want to thank the whole panel, Ms. Jackson, Ms. Brocklebank, Mr. Black, Mr. Bonnett, and Mr. Straathof, for joining us here today. It was a very interesting conversation. Thanks everyone. I'm sure we'll meet again.

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