

Additional Comments to SCCC's opening statement

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Senator Klyne: Thank you, chair, and welcome to our guests, our panel. I was a little late in arriving. My name is Marty Klyne, a senator from Saskatchewan.

My first question is for the Soil Conservation Council of Canada. We have heard and we recognize that there are regional differences in soils across this country, maybe not province by province but certainly region by region.

With all those differences, I have to think that, as the face and voice of soil conservation and health in Canada, you would be working with large data sets, big data, blockchain perhaps. I'm just wondering how you synthesize all this data and share it. In that regard, are you working up against these silos that we just referenced in trying to cut through horizontal silos of government departments and/or provincial governments? Then I have a second question for you that follows.

Tim Nerbas, Past Chair, Soil Conservation Council of Canada: I guess I'll take a stab at this, Kier. We don't have the capacity within the SCCC to be looking at large amounts of data. That's beyond our scope at the present time, but definitely it's something that we need to see some sort of structure in Canada that can handle that.

As an organization, we don't have that capacity to look at that large. Because of our capacity, we have to stay at a much higher level.

Senator Klyne: If you had the data available to you, is there somebody out there that's collecting this and could provide it to you so you didn't need the capacity but you could interpret it and synthesize it?

Mr. Nerbas: Well, there's a lot of information across the country, but it's bringing that information together so we can understand what various groups are working on across the country so we're not replicating some of the stuff in certain areas.

But definitely with the kind of country that we have, lots of diversity right across, what works out West definitely doesn't necessarily work in Central Canada or the Fraser Valley, that type of thing. Definitely we have to take an approach that meets the needs of the given climatic regions.

Additional Response to Senator Klyne

It would make sense to work with the Canadian Society of Soil Science with respect to managing soil data.

Senator Oh: Thank you for being here. I want to talk about economics of soil health practice. Improving agriculture soil health will provide many benefits, but it requires thousands of farmers to change soil management practice. What are the costs and benefit numbers associated with cover crops, no-till farming, crop rotation and nutrition management practice, such as applying fertilizer or compost? Anyone could take the question, please.

Mr. Miller: I'd like to comment on this. To start with, both Tim and I are farmers. Our day job is running the farm. So to go to Mr. Munroe's point about no-till, I started no tilling on my farm almost 20 years ago now, and economically I saved \$5 to \$10 an acre just by doing no-till without being able to quantify all the various soil health benefits, the carbon sequestration benefits, et cetera, that would come out of that.

The biggest saving to me is time. It just takes less time. I don't have to go out there and plow that field and harrow that field and pick rocks. I can just go out and seed my crop and carry on.

Mr. Nerbas: The additional comment that I would make is that yes, when we try to move towards improved soil health, some of these things do cost money, but others do not, and some of it is just an education and taking some of the research that's been done across Canada and extending it out to producers so that they can bring it to their own operation. Extension plays a huge role.

Additional Response to Senator Oh. The overall economics of soil health and conservation are not well known and literature on the subject is scarce. This is a critical gap that limits our national effectiveness in maintaining soil health, and we recommend that your study include the issue of the economics of soil health.

Senator Marwah: Thank you to the witnesses. Ms. Antler and Mr. Munroe, this is addressed to you, but I would like Mr. Miller and Mr. Nerbas to jump in as appropriate.

I want to thank you for summarizing the five areas that you said required attention. You did that very succinctly, so I won't repeat the five areas, but I have three questions in that regard.

First, who can or who should manage that process and make sure we make progress with those five things. As you know, nothing happens without leadership. So how do we ensure a leadership role to get this done?

Second, do you have any sense of a price tag to accomplish this probably on an annual basis, because there's no one time solution to this. It's probably an investment that takes years to really get benefits from.

Third, do you have any sense of an operating plan or an execution plan underpinning each of the five areas that says this is the details underneath this that we think we should do? That's a lot of questions into one, but please feel free to respond to whichever ones you think are appropriate.

Senator Marwah: Do you have any sense of the price tag involved to do this effectively? Are you talking about tens of millions, hundreds of millions, billions? I have no perspective on the magnitude of what is involved here.

Additional Response to Senator Marwah

The price tag for securing soil health at a national level is most likely in the billions, but there is no hard information to support that currently.

An alternative way to look at this is to consider that soil health is not a “one and done” issue. Challenges to soil health from climate, market demands, new crops, new pests and many other things evolve constantly. Also, the science and technology we apply to promoting soil health evolve. So, there are many moving parts to this issue, and the challenges to soil health are never completely solved.

The immediate path to follow is to stabilize the current levels of federal expenditure on soil health. Currently those funds always have a timeline usually 5 years or less does not create a good environment for strategic planning. If you accept that the work to maintain soil health will always be there, it makes a strong case for government investment that is stable and long term.

Senator Cotter: Thank you to the witnesses for your presentations and your enthusiasm with respect to these questions.

I want to ask a fairly hard question that’s somewhat connected to Senator Marwah’s. Let me offer you the context. In your presentation, Mr. Miller, you argued that this should be an industry-led initiative, a big and important one. You observed that many farmers are interested in proceeding. I’ve been enthusiastic about your report on recruiting soils to tackle climate change and I’ve been digesting it as fast as I could. I see a terrific collection of suggestions here. One of them is along the lines of leave it to farmers to make the call on this question.

Some of the earlier witnesses who spoke to us said there are early, medium and late adopters but that the late adopters of this initiative are perhaps half of the farmers out there, and significantly large farms — some of the ones, more particularly, that you referenced, Ms. Antler, in your observation about people leasing large tracts of land.

If we leave it to industry, which is what I think we’ve done since you guys came into existence, it might be a long time before we get to where we need to be. I’m really asking you the hard question. Like we do in composting in Edmonton, we make people participate, don’t we? It wasn’t a question to Senator Simons, but she’s trying to answer. I guess I’m asking this: Should there be sticks as well as carrots in order for us to get where we need to go?

Mr. Miller: That has been suggested. However, if you go back to the old fables, they say you can get more compliance or attract more attention with honey than you can with a stick.

You mentioned the early, mid and late adopters. In my opinion, many of the early adopters were the bigger farms because they could actually see the benefits of taking on those practices. It’s the smaller mom-and-pop farms that we’re struggling with.

I’ve got neighbours who look at me doing no-till and they say they’re out there ploughing and harrowing when we harvest our crops. There’s not a lot of difference, but mine cost me a lot less to grow. If you talk to them, their reply is, “Well, that’s the way dad did it and that’s the way his dad did it.” There’s that ceiling, that resistance, that we’ve got to figure out a way to break through, and I don’t think the stick is the way to do it.

Mr. Nerbas: I agree. I'm a big fan of carrots in terms of attracting people and bringing them into a practice. Sticks seem to get everybody up in arms a bit too much, so I'm much more in favour of drawing people to improvements in soil health than forcing them to. Having said that, sometimes a stick is required to move people, but I much prefer the carrot.

Additional Response to Senators Cotter and Marwah

The other important consideration in promoting and speeding up the adoption of soil health practices is to inspire farmers and soil managers to adopt the ethic of soil health. Carrots and sticks will not work alone. Sometimes incentives and regulations are the fast way to get to the minimum response required. We always must keep in mind the power of being acknowledged as a good steward moves you further than carrots and sticks alone. Think of the Stewardship ethic as the third leg of the stool.

The Chair: Thanks very much. I have a question, and it's just very quick. If each of your organizations were the authors of our final report, what is the first recommendation you would have in that report? Mr. Miller, what would be the Soil Conservation Council of Canada's first recommendation in our report?

Mr. Miller: I'd go to the knowledge transfer issue. We need to get that information out there. We need to show Joe down the road that what his father did 20 years ago is not the right way to go now. 40 years ago, everybody went out of the school at noon and started smoking a cigarette, and while there are still people that do that, there's not near as many; so times change, and we need to change with those times.

Additional Response

We also wish to point out the need to develop an inclusive National Soil Health Strategy, led by the agriculture industry. We feel this is essential background to the future of soil health in Canada.

Senator Simons: Then I have a question for Mr. Nerbas. One of the issues that has come up time and again, just as we've had a few hearings on this matter, is a lack of coordination of information. I'm sorry, this is a question for Mr. Miller. My apologies. I guess you could both take a stab at it.

There doesn't seem to be a central point at which people who have an interest in this topic, whether they are farmers, academics or government researchers, have one place to pool their information and one place that can sort of be a nexus point for all of the research and discussion about this.

I'm wondering what you think would be the right place for such a nexus point. Should it be in academia, in government or more in the agricultural community?

Mr. Miller: I'll take this one, Tim. I'm a farmer, so my personal feeling is that it should be in the agricultural community. But at the same time, we need to break down those silos of information and share it. How that is going to happen remains to be seen. That is something that could actually come out of this study.

Senator Klyne: Thank you. This isn't really a question for the Soil Conservation Council of Canada. It's a statement looking for a response, and if you need to provide a written response, I

would greatly appreciate it, given the time. When you start talking about government at a high level with a central organization that shares research and new technologies and engages with multiple stakeholders, I harken back to the days of PFRA. What is your response? I ask that of you as farmers and the voice of Canada for soil health.

The Chair: Mr. Miller, 30 seconds, and then I would welcome your response in writing as well.

Mr. Miller: I have no experience with PFRA, being as I'm in southern New Brunswick. However, I have had contact with that organization when they were a going concern, and I think we need something like that again. That's just my opinion from the East.

The Chair: Thank you very much, folks, for your time today. Mr. Miller, Mr. Nerbas, Ms. Antler and Mr. Munroe, thank you for your participation this evening. Your assistance, as you well know, is very much appreciated. We could see the passion with which each of you answered the questions. So thank you very much. We ask you to turn your cameras off. Please feel free to carry on listening to us, and we'll now continue with panel two.

Response to Senator Simmons and Klyne

Senators Simmons and Klyne both asked questions about the need for there to be some sort of hub or nexus for information and programs that focus on soil health. There is ample evidence the importance of soil health presented at this meeting and others. Healthy soils underpin all the benefits (economic, social, environmental, food security, climate change, clean air and water and biodiversity to name a few) that health soils bring to Canadians. Our answer is yes, there need to be a point of leadership in Canada on the issue of soil health.

Leadership and coordination of effort at a national level is complicated. Agriculture is shared jurisdiction involving federal, provincial and territorial governments and in some cases local and municipal governments play a role. For all levels of governments to successfully work together there does need to be a stronger vision of what we can and will achieve together if Canada is to remain a world leader in sustainable agriculture production.

Outside of governments agriculture is also complicated. Our industry has a huge number of farmer-based organizations that often are focused on one or a few commodities and see there needs through that lens.

Climate, soil types, tradition and other factors contribute to the regionality of our industry in Canada. All that means is farming in Canada is different depending on where you are.

These points and others support our earlier yes answer. Bringing all these challenges together on a national basis needs to be someone's priority in a pure form and not a subset of other issues and priorities. Soil health is no accident. It will happen when we set out to insure it does. Hoping soil health will appear through serendipitous good luck is not a winning strategy. Navigating all these challenges that transcend public policy through to actions that farmers and other soil managers can reasonably take, can be measured and report to Canadians on an ongoing basis will be best served by an organization that is focused solely on sustaining the health of Canadian soils.

As the challenges of soil health change with time, as they will, this soil health entity will need the flexibility to react and adapt to new circumstances quickly. It seems this new entity would be best developed outside of government, but with strong links at the provincial and federal level.

Senator Klyne made a statement about some of the merits of the former PFRA that would be positive attributes in the future of soil management in Canada. In the later part of PFRA's history as a government agency they took a leadership role in developing broad relationships with farmers, governments and industry to save our soils. They brought irrigation and municipal water supplies to dry areas of the prairies, stabilized millions of acres of agricultural lands with programs that planted shelterbelt, set aside marginal lands and changes land use from annual crops to community pasture. These and other programs are great examples of what a focused organization can achieve, and they must be considered in the future.

However, it is unlikely that a new entity like PFRA can be created within government today. PFRA evolved over 75 years, and we will need to act much faster. We can learn from the history of PFRA and adapt them to current and ongoing circumstances.
