Managing Neonicotinoids in Row Crops

Quebec Farmer Panel on Transitioning Away from Neonic Treated Seeds

January 23, 2023

Transcript

https://www.youtube.com/watch?v=N9OWx9XWIaE

Panelists: Louis Robert (translator) Jocelyn Michon (translated), Renaud Peloquin (translated), Stephane Pitre (translated), Francis Quintal

Takeaways on Key Questions:

1. Is it difficult to source and purchase seed that is not treated with neonics and are they more expensive? Were you concerned about losing access to seed?

Jocelyn: " At first it was difficult to find seed with no neonics, but after 2 or 3 years the varieties that he was using were available from his seed supplier with no insecticide so he didn't have to go to an additional step of using either diamide or other insecticide; he right away switched to no insecticide whatsoever on his seed."

Renaud: " He says don't be fooled because all the seed suppliers can turn around quickly and provide insecticide free seed in no time actually. There are a lot of marketing strategies to scare people that they need to use neonics, but you shouldn't be bothered with that. They can turn around pretty quickly and provide insecticide free seed. . . . It's never more expensive to use non-treated seed. But depending on the company, sometimes there's no difference in cost. But most of the time you'll see a cost advantage of $10-20 per bag."

Francis: " We started like ten years ago. At the beginning it was harder to get non-treated seeds; we had to ask the dealer to get it. For grain corn was easy, but for silage corn it was hard so we started using untreated seed for silage about 4 or 5 years [ago] because it was not available; but for 2024 we didn't ask the dealer and he just asked us if we wanted treated or not treated. So it was pretty easy. . . For my farm it's around $10-20 less per bag Canadian. So it's cheaper."

Stephane: "He's saying that he did not have huge problems with sourcing seed without insecticide as long as you put your order early on in the season in the fall then you will not have any problem with getting the seed you need."

2. Have you experienced any crop loss due to insect pests after transitioning away from the neonic seeds or have you seen any benefits?

Jocelyn: "In any year throughout the years that he did trials he didn't see any difference in yield so there was no impact on yield."

Renaud: “He doesn’t see any problem in the yield dropping from using insecticide-free seed; but you have to be careful at the same time, especially in the springtime. You have to be patient and wait for the soil to be in good condition for planting or seeding.”

Francis: “When we started, we were not using 100% non-treated seeds, so we could compare every yield and it was almost the same; so right now we’re using 100% non-treated seeds and when I compare to neighbors or other people there is no difference. We never had any problem with it.”

Stephane: “Stephan didn’t see any yield difference either. He insists on being patient in the springtime to wait for the soil to warm up to a proper condition and that’s a key factor.”

Louis: “ The proof is that with all the acreage of all the crops being grown with no insecticide that if we were to experience a yield drop it would have been obvious by now. I remember that a few years back there was a big debate over the impact it would have of such a regulation on our productivity and our tonnage and our crop yields in Quebec, but it never showed up.”

Louis: In the three or four years ever since the dept of environment announced that they were going to limit the use of insecticide, right away the companies were claiming that it would mean the collapse of the grain sector in Quebec. There was a big outcry and marketing strategy and fake news actually. They were worrying people, agronomists and producers but it never happened actually. There was as I said I was talking with a friend of mine who works for insurance board in Quebec and to his knowledge he inspected fields that farmers were claiming that they had a yield decrease because of wireworms and the fact that they weren’t using insecticides any more and he didn’t see one instance where that was the case. No crop failure registered or monitored by the crop insurance board in Quebec related to the use of untreated seed.

3. <u>Quebec has a justification of need program where a third party agronomist performs a pest assessment to show neonics are warranted and needed before granting the farmer a waiver. Have the farmers been through this process and what was your experience?</u>

Louis: “I know that none of the farmers here have used that process so far and very few actually did use it because it’s needed only in the case that you want to use neonics and if you look at your situation in Quebec, most growers are not using insecticide. They’re moving right from neonics to NO insecticide pretty fast. And if they're moving to diamides, they don’t need to go through that process of justification of need. Maybe about 120-130 cases altogether in all regions of Quebec since implementation of that regulation that actually did use it.”

Jocelyn: “Overall the official figure put out by the dept of environment is that less than 0.5% of corn acreage here in Quebec is treated with neonics, over 99% of the corn acreage no neonics.”

4. <u>Neonics are viewed by many as a cheap form of crop insurance. In the absence of neonic treated seeds, are you finding other ways to protect crops? Are there other classes of pesticide you are using; and also the question of crop insurance comes up.</u>

Jocelyn: “He’s saying that in terms of insurance what he does is that just one year of corn, no corn on corn on his farm. It’s a quick rotation one year per crop and he grows

legumes, winter rye so it's a turnover of crops, biodiversity is a key word here. It's a key part of the IPM created best management practices that he put into place on his farm."

Renaud: " As long as the crop insurance board works in Quebec, as long as the seed being used by the farmer is certified seed, then they don't see any problem with not using insecticide on the seed. They were probably influenced by the research results that everybody got here in Quebec that showed definitely no benefit to farmers or the crop yield for using neonics, so that's why they feel secure with the science even though no insecticide is being put on the seed, there is no problem."

Francis: " Yes, it's the same as Jocelyn and Renaud. We do a lot of rotation but we have corn silage,so we do one year of corn for grain and after that corn silage, but no more than two years. We never experience bad years of yield so I'm crossing my fingers but it's working for now."

Stephane: " He experienced one year he had the yield crop failure because of wire worms and he got his seed reimbursed by the compensation financial compensation directly from the seed company for that particular occurrence. It wasn't a large area, either but the seed supplier was ready to compensate for the yield loss that he experienced from using untreated seed in that particular case. That happened in one field in one year in a small acreage. He's saying the same thing, emphasizing the benefit of crop rotation and patience in the spring.

FULL TEXT:

Samantha Alger [University of Vermont Bee Lab]: To start I'd like to give folks the context for this conversation. In 2019 Quebec passed restrictions on neonic-treated seeds, and as a result the farmers, the government and markets have adjusted to make the transition. Just last month in December we saw a bill in New York signed into law phasing out neonic-treated seeds and a ban on non-agricultural uses of neonics. And here in Vermont a bill was just introduced that was largely modeled after the New York bill, and so with all of these proposed changes happening to our neighbors to the north and to the west, and potential for changes happening here in Vermont, farmers are understandably wondering about jow to make these transitions. So since Quebec started with this whole process in 2019 we thought it would be useful to interview Quebec farmers about their experiences. So we prepared 4 questions for the farmers to answer. If there's time we'll open up for questions from the public.

We have Louis Robert here to help translate as needed. So we'll start with an introduction from Louis and then have the panelists introduce themselves.

Louis: Thank you Sam. Good morning to all. I'm an agronomist and feed crop specialist. I worked with the department of agriculture here in Quebec for 35 years. Since 2022 I'm retired but I still do work as a consultant agronomist and I'm still very much involved in feed crops and soil quality and that sort of thing. And so I've been following the issue of pesticides in Quebec for decades now, so I invited the 4 panelists here. I'll do the translation as we go along from either side moving from French to English, but now I'll just turn over the microphone to our panelists here. I'll start with Jocelyn to give a few words.

Jocelyn: [from La Presentation] He has 200 acres corn, 200 acres soybeans for seed production and 100 acres green beans for processing. Everything is no till and he uses cover crops almost everywhere every year. Thank you.

Renaud: He's from Sainte-Vitoire-de-Sorel, a village close to the St. Lawrence River. He grows 1300 acres of corn, soybeans, winter wheat, cover crops as well under ridge till and no till.

Francis: I'll do my best to speak in English but if you don't understand please let me know. I'm at Saint-Ignace-de-Stanbridge, around 15 minutes from the US border. We have a dairy farm here. We have 300 acres in culture. We do hay, corn for silage, corn for grain, soybean, winter wheat and winter rye. We do mainly no till and minimum till and we also do cover crops.

Stephane: I farm in Saint-Louis-de-Gonzague, which is a village near the Ontario and NY border in SW Quebec and we have a dairy farm and we grow cash crops on 300 acres of wheat, corn, soybeans under no till and reduced till and we do a lot of cover crops as well.

Louis: All 4 of our panelists don't use insecticide anymore on their seed. So for some of them for the last 5 years, but in the case of . . .

10:25 Samantha: So farmers are concerned about the availability of corn and soy seed that is not treated with neonics. It's apparently difficult to find non-treated seed and generally only one variety is available. Can you share your experiences in sourcing and purchasing seed that is not treated with neonics and did you find it difficult and is this situation improving?

Jocelyn: He attended a conference by a well-known researcher in Quebec named ___. She did pioneering research on the effect of neonics on the actual insect pest that we have in Quebec and as early as 2014 she issued the first results from that project and said that it was of no benefit to use the neonic coating on corn and soybean. So right away he switched and didn't use any neonics the next year and in a year's span he got rid of all his neonics on the seed and he asked his agronomist advisors at the beginning to do some scouting and to look after his field if there was any risk associated with the fact that he didn't use neonics any more. At first it was difficult to find seed with no neonics, but after 2 or 3 years the varieties that he was using were available from his seed supplier with no insecticide so he didn't have to go to an additional step of using either diamide or other insecticide; he right away switched to no insecticide whatsoever on his seed. He thinks that with own seed supplier– the coop supplier here in Quebec–it was easier for all the farmers because the coop here in Quebec was bagging the seeds here in Quebec. They were importing the seed in huge lots and were bagging them right here, so it was on short notice he could tell them not to put insecticide on his seed.

Renaud: He switched from neonic coated seed with no insecticide to just fungicides and he is also a customer of the coop so it was relatively easy for them to provide insecticide-free seed. He says don't be fooled because all the seed suppliers can turn around quickly and provide

insecticide free seed in no time actually. There are a lot of marketing strategies to scare people that they need to use neonics, but you shouldn't be bothered with that. They can turn around pretty quickly and provide insecticide free seed.

Louis: And I might add too that the province of Quebec every year issues a press release where they have a list of insecticide-free hybrids available with the different seed suppliers like Pioneer and all those companies. So it became very available, for with a competitive approach they have to make them available to the customer. They have no choice. The customer is always right if he asks for insecticide free seed he gets it.

Francis: We started like ten years ago. At the beginning it was harder to get non-treated seeds; we had to ask the dealer to get it. For grain corn was easy, but for silage corn it was hard so we started using untreated seed for silage about 4 or 5 years [ago] because it was not available; but for 2024 we didn't ask the dealer and he just asked us if we wanted treated or not treated. So it was pretty easy.

Stephane: He's saying that he did not have huge problems with sourcing seed without insecticide as long as you put your order early on in the season in the fall then you will not have any problem with getting the seed you need. Sometimes he finds it difficult to return seed–for example late spring _____ the maturity group that they are using, but overall even in those occasions it wasn't a big problem for the companies to change the hybrids or the seed varieties. Soybean seed in Quebec, more of the soybean seed is processed and bagged in this area than in the case with corn. More corn seeds come from Ontario or the Midwest. But providing an early order he didn't experience any problem.

21.30: Samantha: We have seen a lot of research demonstrating that neonic-treated seeds provide little benefit for crop yields. As Quebec has transitioned away from neonics have you experienced any crop loss due to insect pests after transitioning away from the neonic seeds or have you seen any benefits?

Jocelyn: From his point of view he did some trials 10 or 15 years ago with or without insecticides and at the time they were told that they might not see an effect on the insect damage but yet, even when there's no insect pressure, farmers will see an increasing yield from using an insecticide on the seed. And at that time they were promising an increase of a ton per hectare in grain yield. That would be about 400 pounds per acre increase in yield. But he didn't see that whatsoever. In any year throughout the years that he did trials he didn't see any difference in yield so there was no impact on yield. Aside from not putting any toxic chemicals in the environment, he didn't see any benefit in yield from using insecticide. If ever he sees evidence of good positive effects of using insecticide, he won't have any problem going back to the use of insecticides; but for the time being he doesn't see any benefit of using insecticides.

Renaud: He doesn't see any problem in the yield dropping from using insecticide-free seed; but you have to be careful at the same time, especially in the springtime. You have to be patient and wait for the soil to be in good condition for planting or seeding. So one of his tricks is to

check one of his neighbors who is an organic farmer and whenever this farmer finds that the time is right for seeding then everybody goes out and starts to seed because they wait a little bit further, some extra days for the soil to warm up. Because whenever you relent in the direction that the seed is in the ground with cold and moist conditions then you increase the risk of damage. And you have to be also careful with the preceding crop. If it's grassland and hay fields, you increase the risk of having some damage by insects. But apart from that everything is fine.

Francis: When we started, we were not using 100% non-treated seeds, so we could compare every yield and it was almost the same; so right now we're using 100% non-treated seeds and when I compare to neighbors or other people there is no difference. We never had any problem with it. Until the day we have insect problems, we will keep going with non-treated seeds.

Samantha: To clarify, when you say 100% non-treated seed, are you saying non-neonicotinoid treated seed or non-treated seed, no treatments at all.

Francis; Non-neonic.

Louis: No insecticide?

Francis: No insecticide. We're not organic or anything.

Louis: So there's a fungicide coating, but no insecticide. The farmers experience with that respect detecting real difference between treated and non-treated, it's variable, but at the same time it's hard to have all the same conditions, for a sound comparison of treated versus non-treated. You have to have the same hybrid, the same seed lot even, so it's not easy for a farmer to have to run a viable test in his fields. But Jocelyn was part of the network with the researcher _____ so in her research project she did use the exact same seed lot and the same condition.

Stephane: He's adding a very good point is that the insurance board here in Quebec, crop insurance board, is offering farmers an $18 per acre incentive for not using insecticides on their seed. But you've got to be a member or a user of their program., but nevertheless it's good money. So it's a good incentive. Stephan didn't see any yield difference either. He insists on being patient in the springtime to wait for the soil to warm up to a proper condition and that's a key factor. You need to have a quick germination of the crop, corn or soybeans, you don't want the seed to sit in moist and cold ground for too long and if you're an early planter be patient and wait a longer couple of days or maybe a week before seeding. He is also mentioning about ending. One of the benefits he sees about not using insecticide is you're not bothered you're not contaminated with ending toxic seed, toxic chemicals.

Jocelyn: Incentive of $18 per acre you have to fill in the form and send it on time for the dept. of agriculture to recognize it. Maybe about 30% of all corn growers benefitted from that $18 per acre incentive; and of course that's Canadian dollars, better than nothing.

32:17 Samantha: Quebec has a justification of need program where a third party agronomist performs a pest assessment to show neonics are warranted and needed before granting the farmer a waiver. What does this process entail? Maybe Louis could give an overview of that before we ask the farmers to follow up. Is this a look at the environment and pest scouting? For farmers, have you been through this process before and if so what was your experience.

Louis: I know that none of the farmers here have used that process so far and very few actually did use it because it's needed only in the case that you want to use neonics and if you look at your situation in Quebec, most growers are not using insecticide. They're moving right from neonics to NO insecticide pretty fast. And if they're moving to diamides, they don't need to go through that process of justification of need. Maybe about 120-130 cases altogether all regions of Quebec since implementation of that regulation that actually did use it. And it's very simple in terms of paperwork. It's just an additional step for farmers to perform that they don't want to do that to have to obtain the service of an agronomist and fill in the form and then send the form to dept of environment. There are two forms actually which are very simple but if you want to do a good job you have here in Quebec researchers have developed an online decision support tool called _____ It's free it's online you can use it in VT it's in French of course. You're right, it involves scouting, it involves risk assessment, for example you type in the soil texture, the history of the fields and so forth all the factors that would increase the risk of problems with insects in the soil. So it's a voluntary measure and compulsory forms to fill in. I'm told by the department that most of the time the procedure is not done correctly so they have to go through all over again with the agronomist because it's not filled in properly. So it's not working fine. Most people are rather moving quickly to no insecticide or going to diamide rather than filling in forms. That regulation that was put in place for justification of need pretty much resulted in complete ban on neonics here in Quebec. So either they switch to diamide for things, or they switch, like the 4 farmers we have here, altogether to no insecticide at all. So there's a cumbersome procedure and paperwork but it's easier to do without those by going to diamides or no insecticide at all.

36:10 Samantha: You did say that the farmers here have not been through this process, so I'll just allow each of you to respond to that question to offer your comments; but if you haven't experienced it, that's fine.

Jocelyn: Overall the official figure put out by the dept of environment is that less than 0.5% of corn acreage here in Quebec is treated with neonics, over 99% of the corn acreage no neonics. Some may be still treated with diamide insecticide but he's saying the same thing I was saying that it's too much trouble, cumbersome to run through the process to be able to use neonics to go through a series of steps of paperwork, hiring your agronomist to do the paperwork so they don't want to do that.

Louis: Somebody's got to spend time on it. You may be in your home and your agronomist may be out in the field scouting in the fall so on and so forth. It's no wonder that 0.5% of acreage is

still using neonics. Very easily they can do without neonics using diamides, or no insecticide at all.

It's already known there was a press release saying dept of environment is going to enforce the same procedure in terms of justification of need for ALL pesticide use on seed; and in terms of insecticide it's going to be as early as 2025 and shortly after it's going to expand to all pesticides on seed. So including fungicide. It's coming, you know. So the seed suppliers are warned so they are getting prepared, they are getting ready for supplying farmers with the proper seed with no chemicals on the seed whatsoever.

So it's already started. No insecticide as early as 2025 compulsory enforced by law, then 2027 or 2028 no pesticide whatsoever.

Samantha: Did anyone else want to respond to question 3 before I move to question 4?

Louis: No

40:36 Samantha: So the last question we have for you before we open it up to questions from the public is: Neonics are viewed by many as a cheap form of crop insurance. In the absence of neonic treated seeds, are you finding other ways to protect crops? Are there other classes of pesticide you are using; and also the question of crop insurance comes up. I feel that many of you have already touched on this talking about diamides and some of you are not using insecticides but perhaps you have some additional comments.

Louis: Are you aware Sam that Vermont farmers are using diamides already? Are they familiar with _____ or those kinds of chemicals? Or they're not offered?

Heather: No, they're not. They're not using other types of insecticides. They're getting the standard neonicotinoid treatment that I'm sure all you folks were getting as well prior to the regulations. And before that, people make decisions.

Louis: Turning to the Quebec farmers.

Jocelyn: He's saying that in terms of insurance what he does is that just one year of corn, no corn on corn on his farm. It's a quick rotation one year per crop and he grows legumes, winter rye so it's a turnover of crops, biodiversity is a key word here. It's a key part of the IPM created best management practices that he put into place on his farm.

Renaud: As long as the crop insurance board works in Quebec, as long as the seed being used by the farmer is certified seed, then they don't see any problem with not using insecticide on the seed. They were probably influenced by the research results that everybody got here in Quebec that showed definitely no benefit to farmers or the crop yield for using neonics, so that's why they feel secure with the science even though no insecticide is being put on the seed, there

is no problem. Again, Renaud is insisting on the importance of crop rotation changing your crop in any given field; don't grow the same crop two years in a row.

Francis: Yes, it's the same as Jocelyn and Renaud. We do a lot of rotation but we have corn silage,so we do one year of corn for grain and after that corn silage, but no more than two years. We never experience bad years of yield so I'm crossing my fingers but it's working for now.

Louis: You can't really relate any yield difference compared to when he was using insecticide to now and see any difference.

Stephan: He experienced one year he had the yield crop failure because of wire worms and he got his seed reimbursed by the compensation financial compensation directly from the seed company for that particular occurrence. It wasn't a large area, either but the seed supplier was ready to compensate for the yield loss that he experienced from using untreated seed in that particular case. That happened in one field in one year in a small acreage. He's saying the same thing, emphasizing the benefit of crop rotation and patience in the spring.

47:10 Samantha: Thank you everyone for answering the questions that we had prepared for you. Someone asked for confirmation about the crop rotation. Was the crop rotation intended to remove residual neonics in the soil, just one year of rotation of a different crop was enough to remove residual?

Jocelyn: The purpose of doing short term rotation is not to reduce the amount of insecticide residue in the soil but rather to avoid building up the insect population that would increase getting some damage to the crop in the long term. If you grow corn 4 years in a row for sure you increase the risk of having a lot of problems not only insect problems but disease problems as well. It's a good practice all around.

49:18 Heather Darby [University of Vermont Extension]: There are a bunch of questions and I think follow up on the one that's focused on rotation and I think maybe Francis it sounds like you grow a lot of silage as well, so maybe something you could answer. The question is typically our dairies here are 4 years of alfalfa or alfalfa grass mix followed by 3 or 4 years of corn silage. So when you're shifting to such a short rotation, how do you manage that to make up for a deficit in total forage production?

Louis: I'm not sure I get the question here, but I'll just repeat in other words. Would that be a concern about having a yield difference for growing 4 years of corn in a row whereas compared to a one year crop rotation with having corn silage just one year and moving to hay?

Heather: Yes

Stefan: One alternative he would suggest is to grow winter rye between two corn silage crops early hybrids of course. But you can plant winter rye if you harvest your corn silage early

enough then you can probably plant winter rye in early October the end of September maybe and then you just harvest in the spring then you chop that winter rye forage as silage and then plant another crop of corn silage. Mind you I've seen results from Cornell saying that this type of rotation will not improve your silage yield all over, _____

Heather: Sometimes land bases are restricted here anyway where people maybe are just getting enough feed, so changing a rotation drastically because corn silage has often larger dry matter tons. So it's really about how to figure out how to balance that to short rotation. You don't necessarily have the answer.

Louis: It's probably the same in Vermont but in Quebec there's a tremendous increase in the acreage covered with cover crops and some of the species that you use in cover cropping can break down the cycle of insects as well as diseases and by doing so you can probably do without any insecticide . It will take the insect population so low that it won't bother you anymore. That's my point of view. Another alternative would be using cover crop of a different plant family like legumes.

53:40 Heather: There are a couple of people asking about cost. Does it cost the same for treated or untreated seed? Does it cost more? Is it an inconvenience that it costs more at first? What's the cost difference if any?

Francis: For my farm it's around $10-20 less per bag Canadian. So it's cheaper.

Renaud: It's never more expensive to use non-treated seed. But depending on the company, sometimes there's no difference in cost. But most of the time you'll see a cost advantage of $10-20 per bag.

55:25 Heather: Are any other insecticides used over the life of the crop, not on the seed but otherwise?

Jocelyn: Whenever it's possible, he'd rather not use any insecticide, but in 2022 on one of his soybean fields he had to use an insecticide to control the aphid infestation, but apart from that, he doesn't use any insecticide during the season. He also grows green legumes for a local processor under contract and those they manage themselves; so sometimes they drop over to his field and spray insecticide on the legume (vegetables).

Heather: So somebody was asking about that, Jocelyn, somebody that might grow snap beans or green beans. They want to know if you were using untreated seeds for the vegetables or some other very susceptible crop.

Jocelyn: I'm not sure.

57:46 Heather: In Quebec prior to the law that was limiting neonic use, were you concerned about losing access to seed? You know we hear that a lot here. And I think you already mentioned this, scare tactics, the fear.

Louis: The fear of losing yield?

Heather: Losing yield, losing access to seed varieties.

Louis: In the three or four years ever since the dept of environment announced that they were going to limit the use of insecticide, right away the companies were claiming that it would mean the collapse of the grain sector in Quebec. There was a big outcry and marketing strategy and fake news actually. They were worrying people, agronomists and producers but it never happened actually. There was as I said I was talking with a friend of mine who works for insurance board in Quebec and to his knowledge he inspected fields that farmers were claiming that they had a yield decrease because of wireworms and the fact that they weren't using insecticides any more and he didn't see one instance where that was the case. No crop failure registered or monitored by the crop insurance board in Quebec related to the use of untreated seed.

Jocelyn: I would say that at the farm level, that message wasn't going to go through anyway, but at the political level, higher level in Quebec City for example, there was lobbying being done for the government not to put in place the regulation. I remember that. It's so huge the pressure coming from all around you can't fight that too much.

Renaud: They break the ice, they've beaten the path for others to follow. There is so much acreage grown with no insecticide it's obvious to everyone that the consequences are not that huge. They don't see any difference in yield.

Louis: The proof is that with all the acreage of all the crops being grown with no insecticide that if we were to experience a yield drop it would have been obvious by now. I remember that a few years back there was a big debate over the impact it would have of such a regulation on our productivity and our tonnage and our crop yields in Quebec, but it never showed up. It's not even discussed anymore. Now the debate is over the fact that farmers will have to get the seed the same quality as the organic growers because they have to find hybrids and varieties with no chemicals at all. So we hope that the seed suppliers will move swiftly to provide farmers. But I'm sure it's going to happen. It's obvious that it's simpler, it's much easier for a company to not put pesticide on its seed and to provide those seed coatings on the hybrids and varieties that they sell.

Samantha: Thank you so much everybody. We really appreciate all of your time and your sharing your experience and perspectives.

103:57 Heather: Thank you everyone. I know we didn't get to all the questions. But Francis, why is it harder to get silage corn seed untreated? Because that's what people grow here. So that was a really important thing you mentioned and I'm curious why.

Francis: Well, it was hard like 10 years ago. _____ It wasn't available, but now it's really easy to have. Like I said at the beginning, this year the salesman just asked us if we wanted treated or not treated. So it's really more easy now than it was 10 years ago.

105:13 Heather: So as a clarification you said that the Co-op was treating the seed with a fungicide?

Louis: Yeah, most of the seed the 4 panelists are using are still treated with fungicide on the seed

Heather: But it's being treated locally?

Louis: For some supply yes, but not all of them.

Heather: Who is the main corn seed company or are there a bunch?

Louis: Good question, I would say Pioneer is probably the main, not just a share of the market. DeKalb, _____, Cropland.

Heather: It's a logistical thing. Are the coops buying the seed untreated, ordering it ahead of time and then it comes into Quebec to the Coop and then they treat it with fungicide?

Renaud: He's involved in his local coop and says it's no longer done in Quebec. All the seed, even coop, comes all coated from Ontario.

Heather: I was just curious, it's more of a logistical thing since we don't have the same system as you have. Everything comes direct from Pioneer, Bravant, whoever, so we don't have too much control. We can follow up. We'll all be in touch I'm sure.