



Legislative Assembly of Alberta

The 28th Legislature  
Second Session

Standing Committee  
on  
Resource Stewardship

Bill 201  
Agricultural Pests (Fusarium Head Blight) Amendment Act, 2014

Monday, May 26, 2014  
10:04 a.m.

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The 28th Legislature  
Second Session**

**Standing Committee on Resource Stewardship**

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**Bill 201 Sponsor**

Kubinec, Maureen, Barrhead-Morinville-Westlock (PC)

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## **Standing Committee on Resource Stewardship**

### **Participants**

Ministry of Agriculture and Rural Development  
James Calpas, Executive Director, Crop Research and Extension  
David Feindel, Director, Pest Surveillance



**10:04 a.m.****Monday, May 26, 2014**

[Mr. Khan in the chair]

**The Chair:** Folks, thank you. Sorry that we're running just a touch late. I'd like to call the meeting to order and welcome all members and staff in attendance at today's meeting of the Standing Committee on Resource Stewardship.

My name is Stephen Khan, and I'm the chair of this committee. I would ask that members and those joining the committee at the table introduce themselves for the record, and then we'll hear from those on the phone. We can start to my immediate right.

**Mr. Allen:** Good morning. Mike Allen, MLA for Fort McMurray-Wood Buffalo.

**Mr. Xiao:** Good morning. David Xiao, Edmonton-McClung.

**Mr. Goudreau:** Hector Goudreau, Dunvegan-Central Peace-Notley.

**Ms Calahasen:** Pearl Calahasen, Lesser Slave Lake.

**Ms L. Johnson:** Linda Johnson, Calgary-Glenmore.

**Ms Kubinec:** Maureen Kubinec, Barrhead-Morinville-Westlock.

**Mr. Casey:** Ron Casey, Banff-Cochrane.

**Ms Zhang:** Nancy Zhang, legislative research officer.

**Dr. Massolin:** Good morning. Philip Massolin, manager of research services.

**Dr. Brown:** Neil Brown, Calgary-Mackay-Nose Hill.

**Mr. Tyrell:** Chris Tyrell, committee clerk.

**The Chair:** Fantastic.

If we can have those committee members who are on the telephone line introduce themselves. We could begin with our deputy chair.

**Mr. Hale:** Jason Hale, Strathmore-Brooks.

**Mr. Bikman:** Gary Bikman, Cardston-Taber-Warner.

**Mr. Cao:** Wayne Cao, Calgary-Fort.

**The Chair:** Fantastic.

I think we missed one of the folks at the table, did we not?

**Mr. Young:** Steve Young, MLA for Edmonton-Riverview.

**The Chair:** Fantastic.

Folks, just a few housekeeping items to address before we return to the business at hand. The microphone consoles are operated by the *Hansard* staff. Please keep cellphones, iPhones, and BlackBerrys off the table as these may interfere with the audiofeed. Audio of committee proceedings is streamed live on the Internet and recorded by *Hansard*.

Now, as we proceed here, we're looking for approval of the agenda. Has everyone had a chance to review the proposed agenda? Could we get a draft motion to approve the agenda? Mr. Allen. Let it be shown to be moved by Mr. Allen that the agenda for the May 26, 2014, meeting of the Standing Committee on Resource Stewardship be adopted as circulated. All in favour? Any objections? Not hearing any objections, that motion is carried.

Now we'll be moving ahead to the presentations on Bill 201, and we're very fortunate to have the bill's sponsor here. As members are aware, Bill 201, Agricultural Pests (Fusarium Head Blight) Amendment Act, 2014, has been referred by the Legislative Assembly to this committee for review. In consultation with the working group I have worked with our support staff to make arrangements for today's organizational meeting. As we begin our review, I would like to welcome Ms Kubinec, MLA for Barrhead-Morinville-Westlock and sponsor of Bill 201, to join us and tell us about her bill. We've set aside about 10 minutes of presentation time, to be followed by questions from committee members.

Ms Kubinec, we're very happy to have you here. Please proceed when you are ready.

**Ms Kubinec:** Thank you very much, Mr. Chair. It's an honour and a privilege to be here. This is my first time to bring forward a private member's bill, and I want to thank the Standing Committee on Resource Stewardship because we now have the opportunity for all parties and stakeholders to provide a recommendation that the province then could use to move forward.

As you probably know, Fusarium is an air- and soil-borne toxin that is classified as a pest under the Agricultural Pests Act. Specifically, it is a fungal disease caused by the presence of the Fusarium graminearum toxin. Since the 1920s Fusarium has caused significant loss of grain yield and grain quality. Currently there is a zero tolerance for levels of Fusarium, and that's where this initiated from. I had constituents come to me and say: we have it here, we have it in over half of the province, we can't stop it because it's air- and soil-borne, and we have to have a way to move forward in developing tolerant grains and in just dealing with it.

There are strategies that can be used to lessen the effects of it. I recently watched a YouTube video on Manitoba, where they're using spray times very, very strategically in the formation of the head of the wheat. They have to pick exactly the right days in order to use the spray properly. Other provinces are moving ahead with developing strategies on how to deal with it and developing tolerant – there's no such thing as resistant grains, but there are tolerant grains that are being developed.

**10:10**

As it stands now, farmers in southern Alberta who are experiencing the infestation of Fusarium coming from eastern prairie provinces are forced sometimes to destroy their crops. It's something, as I said, brought forward by constituents who said: I've been working on this for 10 years, working with the seed cleaning plants, the ag service boards, and in many other organizations in Alberta. This is a controversial issue – I know that – because there is in the north very little of it, if any, and they don't want it there. I totally understand that – I understand that they don't – but by having the current rule that we do, over half the province already has it, and they have no way to deal with it.

One of the things that I would hope is that counties that have policies that say zero tolerance – and many of them do – could continue to have those, but don't tie the hands of the rest of the province with the rule being as it is under the Agricultural Pests Act.

I know I did receive several supportive letters, particularly from counties in the southern part of the province but also from a farmer who farms on both the Alberta side and the Saskatchewan side. He's really in an interesting situation in that on the Saskatchewan side he's fine because I think they don't really have it in their laws. On the Alberta side his hands are tied. He wrote me and said: your level is too low at .5; please make it 5 per cent.

You know, it is a contentious issue, absolutely. We need to decide here: what is the best direction for Alberta agriculture regarding *Fusarium* infestation? Do we continue to have farmers suffer losses due to infested crops, or do we eliminate that zero-tolerance regulation and raise it to .5, as my bill suggests? This issue is important to agriculture across the province, and I am pleased to have it brought here to this committee. There is a strong argument to be made that strict zero-tolerance policy with regard to *Fusarium* levels contributes to putting Alberta farmers at a competitive disadvantage in relation to their counterparts in other provinces, as I've stated.

I'm going off my notes here because this is something that I'm really, really passionate about. As many of you know, we are farmers, and we just need to deal with our reality in this province. We need to come up with a policy that will enable the parts of the province that are free of it – and that's a good thing – to stay free of it, but the current law is just not working for the central and southern parts of the province.

I think I will close at this point in my presentation and be open for questions.

**The Chair:** Thank you very much for your presentation, Ms Kubinec, and thank you so much for joining us today.

At this point we'll turn it over for some questions to our presenter.

**Mr. Goudreau:** Thanks, Maureen, and I can certainly appreciate your passion on this. There's no doubt that basically since '73, over the just about 30 years that I've been involved in agriculture, as you're aware, both as a district agriculturalist and a senior district agriculturalist and then later on as a crop producer or a crop specialist, in all of that time I've seen diseases come and go. We've seen the establishment of new diseases in the province, new weeds – I hate to compare with weeds – the introduction of new weeds coming through, and it's cost us in the long run a considerable amount of money to either develop tolerances or develop products that would control them, you know, making it quite difficult for producers.

In your presentation you did indicate the percentage. I did hear that certainly in certain parts of Alberta there's very little or no *Fusarium* present, and certainly our guests might be able to add to that. They would have a lot more recent data.

I recognize that it's air- and soil-borne.

The other comment that I want to say is that with the mountain pine beetle, for instance, British Columbia didn't do very much to try to control it. Now we're spending in Alberta millions and millions and millions of dollars to try to stop it, and, you know, it's devastating to the forestry sector, especially those companies that are processing pine products. I see this disease quite similarly. And you're right; we are developing some tolerant varieties. It might still take some time. Again, our guests can add to that.

The common theme that I hear in my part of the world – and I don't have some of the answers to that; maybe, Maureen, you might be able to help me – is the actual economic losses to seed producers. As well, I need to know: at what level do we get grade losses so it affects the average grain producer and their ability, when they start losing their grade, to actually pay the price for that?

Then the other one that we fail to recognize is the impact it might have on the feeding industry, the livestock industry, both the cattle and the hogs, and the effect on growth of livestock, the slowing down of, you know, the ability for livestock to maximize their production because of ingesting or eating *Fusarium* grain.

I know that in the Peace there's a sense that seed producers in particular are trying to get more money for their seed production – and I appreciate that – but at the same time saying: we don't really care about the losses that other average grain producers might incur by having sown maybe some grain infected with *Fusarium*, by its constant spread, by its increase in amounts across the province. Part of the cost is then passed on, again, to livestock producers, who might have lower production. I need to understand that, and I know my ag fieldmen and my counties are very adamantly opposed to seeing any changes in that way. So I'd like to have your comments, Maureen.

**Ms Kubinec:** There is no doubt that there has been an economic impact, but other provinces are using mitigation strategies to try to overcome some of that. I think one of the problems that we have in Alberta is that there's no enforcement. I know that there are seed cleaning plants in Alberta where some of them use very strict – if you're bringing seed in to have it cleaned, it's tested first. If it's infected to any degree, your grain is rejected. They can drive 20 miles down the road to another seed cleaning plant that does not have those same strict standards and have their seed cleaned. There's no enforcement, and that's one of the big issues that we're dealing with.

Now, I don't have hard facts and figures for you, hon. Goudreau, as far as what the economic losses have been. Like I say, it is a factor. But I think that by dealing with it, by coming up with strategies, we can do the very best that we can. As far as the counties in the north who are vehemently opposed, I would suggest continuing to have those zero-tolerance policies. It's counties who get to decide because they're the ones who are supposed to be doing the enforcement. I know that that's very difficult for them because I sat on a county. Your ag fieldman is the one that's supposed to be, you know, going out and checking and enforcing. They have a lot to do, and there are few of them.

Like I said, if we continue the way we are, with the current policy, we're stagnated. Our producers in the central and southern part of the province have their hands tied in many ways as to how to move forward, and they're at an economic disadvantage to their neighbours right across the border in Saskatchewan and Manitoba.

**10:20**

**Mr. Goudreau:** Thanks, Maureen, for that. I go back to wanting to use a couple of examples, one with cleavers, not a disease but, certainly, a weed. The Peace Country was cleavers free for many, many years. Certainly, it gradually crept through the province. For those who are not aware, cleavers is quite a nasty weed in certain crops in western Canada.

I remember probing bags and going from one seed producer to the other, especially probing bags of seeds that were brought into the Peace Country. We did find a sample in one of our seed producers out of Nampa. We tried as much as we could to be compassionate in asking him to remove his seed from the market and send it back to where he had got it. He refused to do that and still insisted that he should sell it. Eventually we broke down as a department and said: okay; you do whatever you want with your seed. He did start selling it, marketing it up in the Peace, and for the next few years we could track all the cleavers that got spread out in the field back to this particular individual. Our farmers paid millions of dollars in herbicide costs trying to control that.

The same thing with blackleg. Blackleg showed up. Blackleg is a disease in canola, and it showed up. There's no doubt that we were on the cusp of having some varieties that were quite resistant but weren't quite there yet. As an ag fieldman and under the ag pest act we actually forced a lot of farmers to plow down their

fields if blackleg was detected. We were there. If they weren't, we would hire somebody to plow down the fields. It wasn't a pretty sight, but we were able to control it and manage it and do a good job with it.

There's no doubt – you're right – that, you know, it's under the act to control Fusarium, and different municipalities choose different ways of doing it. But some municipalities are pretty severe with it, and they are doing a great job, and it's not there. They feel: well, because somebody else is having the problem, we need to inherit that problem. They don't want to, and the more we allow it to spread somewhere, eventually it's going to hit us. The effort has to be right across the province, not only in certain areas.

**Ms Kubinec:** I would absolutely agree, but right now we have the inconsistencies between the counties and the seed cleaning plants. They're not all using the same policies, and by leaving the act as it is, we're tying the hands of a lot of work that can be done to mitigate and to help our producers in the south, who are at that economic disadvantage, to move forward. Like I say, I suggest that those counties that are very diligent and very strict and who would do the plowdowns continue to do that so that you can remain as Fusarium free as possible. But by having this policy, it's just a real disadvantage to the rest of the province.

**Mr. Goudreau:** You know, if I may, Mr. Chair, you talk about economic disadvantage, and I agree with that, that they are at an economic disadvantage, especially when it comes to others. But because they are, it doesn't mean that others who are not should become economically disadvantaged. That's the issue that I find.

The other one is that we've just had a measles outbreak in the province of Alberta, and we're doing a great job, I think, of controlling it and managing it. If I relate back to measles: "Because these guys have it, now we'll allow it to spread right across the province. You know, we're not going to do something about it." I think the point that I'm trying to make is that we should have a more aggressive way of trying to control it and eliminate it rather than making it easier for it to spread across the province.

**Ms Kubinec:** That's a great example to use, measles. What we did was develop a vaccine. We developed a vaccine. If we keep the same policy in Alberta, we don't even have the ability to develop the vaccine because of zero tolerance. Any time there is any detection of it, technically it is supposed to be destroyed, so there's no ability to develop that vaccine.

**Mr. Goudreau:** I'll leave it at that for now.

**The Chair:** Thank you very much, Mr. Goudreau.

We're going to proceed with – I've got a little bit of a list of questioners, and I've got Mr. Allen up first, followed by Mr. Young and then Mr. Casey.

At this point, for those who are on the line: if you've got any line of questioning or want to be recognized in the line of questions, folks on the line?

Okay. Very well then. We'll proceed with Mr. Allen.

**Mr. Allen:** Thank you, Mr. Chair. Thanks, Maureen, for your presentation. I have to admit, I have absolutely no education or experience with any form of farming, so you're going to have to talk to me like I'm a six-year-old, but this has been a really valuable presentation for my purpose. I'd never heard of Fusarium head blight, to be honest.

A couple of things that you brought up just raise a couple of questions in my mind. When you talked about the infestation largely in southern Alberta and that farmers with this infestation have had to destroy their crops, (a) is it covered by crop insurance? If so, are there any stats or data available related to the costs of the insurance amounts claimed or the value of the crops that are destroyed? I'm just curious. I mean, obviously, the costs through Agriculture would – we have the crop insurance plan. I know that there are additional funds in there. We had, I think, dealt with this previously in Public Accounts, and the discussion on crop insurance came up, so I don't know if that's available or if it's something we could find out before this bill comes up for second reading.

**Ms Kubinec:** Yes. To my knowledge it is not covered under crop insurance, but I would actually ask that some of our colleagues from Alberta Agriculture clarify that for me.

**Dr. Calpas:** With AFSC and the crop insurance for the first crop, if you have a Fusarium claim on a crop in a specific field and you go back in again with a susceptible variety and get Fusarium, my understanding is that it is not covered.

**Mr. Allen:** So it's just not covered for a second claim.

**Dr. Calpas:** The second and beyond because the insurance is tied to following the management plan to control the disease.

**Mr. Allen:** With this type of infestation, if someone had to destroy a crop and make their claim, are they able to go in, and can they cure the soil? Can they do something so that they can plant in that field again at a future date?

**Dr. Calpas:** My presentation will address some of that. You've taken me to my limit of the understanding of the crop insurance as it relates to Fusarium.

**Mr. Allen:** Okay. Thank you.

Mr. Chair, if I might, I have two more questions. Speaking about the competitive disadvantage with this zero-tolerance policy, do you know what the current policies are of other grain-producing provinces? So if we're at a disadvantage, do they not have a zero-tolerance policy? Do they have something that looks a little bit different?

**Ms Kubinec:** To my knowledge they do not have a policy on it. They just don't speak to it.

**Mr. Allen:** It's just silent in whatever act.

**Ms Kubinec:** Silent.

**Mr. Allen:** Okay. So then if we were to eliminate the zero-tolerance policy and amend the act to be at .5 per cent, what's the implication for risk towards public health? Are there any public safety issues? If we did have something or grains that hit the market at that level, is there going to be any potential impact on public safety?

**Ms Kubinec:** To my knowledge, no. That is very minuscule; .5 per cent is very low. But what that would do is enable at least there to be research so that we could move forward on it, but I don't think there are any health implications. Again, I'm going to, you know – probably the department will speak to that.

**Mr. Allen:** Yeah. I mean, if someone had .5 per cent, when they take it to a seed cleaning plant, that would in fact clean the Fusarium?

**Ms Kubinec:** It wouldn't clean it out, no. It wouldn't clean it out.

**Mr. Allen:** Okay. Good. Thanks very much.

**The Chair:** Thank you, Mr. Allen.  
We'll proceed to Mr. Young.

**Mr. Young:** Well, thank you very much. I've heard a couple of specific things, but generally my sense is that this is risk management about a disease that affects crops. The idea of sort of reducing the tolerance of the percentage, tying that to a series of strategies: it would seem to me that the strategies need to be all laid out first to justify the reduced tolerance. Can you comment on that, Maureen, and what the proposal of your bill is doing? I know you've referred generically to strategies and specifically to tolerance changes, so it seems to me that they're inextricably linked in terms of a management strategy around this.

10:30

**Ms Kubinec:** Right. That's where, as we take this process along a little farther, we're going to be having some experts come and present on what those strategies might be. I have Dr. David Bailey, with Genome Alberta, who is quite anxious to come and talk to this committee about what those strategies might be.

**Mr. Young:** Okay.

**The Chair:** Does that conclude your questions, Mr. Young?

**Mr. Young:** Yup. That's all I've got.

**The Chair:** Thank you for that.  
We'll give the table to Mr. Casey.

**Mr. Casey:** Thank you. The question here appears to be one of, partly, enforcement. We have zero per cent right now. If we don't have compliance in the industry at zero per cent, I don't see that changing, whether it's .5, 5 per cent, or 15 per cent. If the industry is noncompliant, it's simply noncompliant. The major part of this question seems to be the enforcement, and right now, you know, if we're seeing seed entering the market with Fusarium head blight present, I'm not sure what changing the number is going to do without a corresponding ability to monitor and enforce that number, that percentage.

I guess I'm concerned that the number itself is like having a 50 kilometre an hour speed limit and everybody goes 60 because they know they can, or 65 depending on how generous the sheriff is. If there's an acceptance within the industry for noncompliance, I'm not sure what changing the number will achieve. I'd just like to understand that in your mind.

**Ms Kubinec:** I think changing the number will enable those producers in central and southern Alberta to actually function within the rules. Right now it's there. Their car is only going 55. That's the only speed it can go. It can't go 50 because we can't go backwards. Fusarium is there. It's just a reality. By changing it, we are enabling them to be working within the law and giving everyone the ability to develop strategies on developing tolerant grains.

I mean, other provinces are doing this, and other provinces are obviously finding ways to do that. In my presentation I had a map of Alberta, Saskatchewan, and Manitoba. They're old maps, 2002

to 2008, where you can see that the dots have changed, and the dots in this map are also in northern Alberta. It just gives the ability to try to deal with the reality that's here.

**Mr. Casey:** Can I just have a follow-up?

**The Chair:** Please proceed, Mr. Casey.

**Mr. Casey:** I guess really the question is: if I equate it back to the speed limit thing, if everybody drives 70 in a 50, then we should change the speed limit to 70 to accommodate those people that are breaking the law, and then when everybody starts to drive 80 – you understand what I'm saying? If we're changing the regulation just so people don't have to break the rule, the truth is that it appears we're already doing that, and my concern is that it's a slippery slope to start to change regulations simply so that the people that are working outside the regulation, whether it's the reality or not, in fact then become compliant because we've simply allowed for it.

**Ms Kubinec:** I understand that thought, absolutely, but by saying that the car won't go 50 – it'll only go 55 – I'm saying that the reality is that it's there. How do you move forward if you can never grow a wheat or a barley again in southern Alberta? You can never grow it again because it's in the soil. It's in the soil, and you can never get it out. We need to give them some tools to move forward.

**Mr. Casey:** Thank you.

**The Chair:** Thank you, Mr. Casey.

Next on our list is Mr. Xiao, and then we'll come back to Mr. Young for a supplemental question.

**Mr. Xiao:** Thank you, Mr. Chair. I tried to get myself educated about this issue as this is really something new to me. I just tried to apply some common sense here, you know, by listening to the questions and answers. To echo the statements that Mr. Casey just made, the whole purpose is to try to basically change the legislation from zero tolerance to .5 per cent tolerance. Would this expedite the spread of this disease? I totally agree with Mr. Casey. This should be a law enforcement issue. Because we have legislation in place that is zero tolerance, but we're not enforcing our legislation enough, that's why some people are still selling something which is not 100 per cent clean. If we allow this to go ahead, maybe a few years down the road we have to change the legislation again to 10 per cent tolerance because it's already become a widely spread disease. Then how are we going to deal with that? There's no end to this.

You know, I don't by any means know this issue very well, but I just try to make some judgment based on common sense. I think we have to (a) continue to enforce the existing legislation and (b) work with scientists to come up with some solutions. I do believe that with scientific research we might find some solutions a few years down the road instead of being shortsighted. Then the damage could be irreversible, and that would be too late.

Those are my comments. If you could make some comments on that.

**Ms Kubinec:** Yes. I would say that that zero-tolerance policy got us where we are today, which is: over half of the province has it. We are trying to deal with it the best we can, but we have it. The zero-tolerance policy without enforcement has got us where we are today. I'm not talking about the enforcement piece of it. I'm talking about moving the level so that we can deal with reality.



As one young farmer said to me: you should call this the Let's Pull Our Heads out of the Sand Bill because it's here, and let's deal with it.

**Mr. Xiao:** Mr. Chair, just on this point, I understand the realities out there, but instead of every time, you know, we compromise with those people who do not necessarily follow the rules, I think it would be better for us to enforce the rules and to make sure that we no longer tolerate this anymore. I know that probably in reality it's very hard, but my concern is that to further open the door to some of the growers might really spread the disease even further, maybe to northern Alberta. That might be the case.

I'm not a farmer, so I've just made some comments based on common sense. Thank you.

**The Chair:** Thank you, Mr. Xiao.

Next on my list we'll come back to Mr. Young, followed by Mr. Goudreau, and then I have Ms Calahasen on our list.

Mr. Young, you may proceed.

**10:40**

**Mr. Young:** Thank you. From what I'm hearing, the zero-tolerance policy was a strategy to try to limit the spread of it. The failure to properly enforce it was not successful, and it was pointless. You could have put in any kind of policy, but in failing to enforce it, it really just has served as a hint, a good idea. Until you enforce it, it doesn't work.

So right now I think that if we start enforcing now, we'd be closing the barn door after all the horses have left. Regardless of where we go with a strategy in the future or continue with one, enforcement needs to be clearly coupled with that because otherwise it just sort of says that, in your example of the seed cleaning plants, it's just a hint. We really can't judge the effectiveness of the strategy about managing it or controlling it unless we enforce it because it isn't reflective because some people are complying and many aren't. The strategy is only as good as the compliance, and that has not worked. I think that, like I said, if we were simply to put in enforcement now, we'd be closing the barn door after the horses left. There's no point.

**Ms Kubinec:** Thank you. If I might just add to that, that enforcement piece is very important, but the bigger piece is the research and the mitigation strategies on how to make strains which are more resistant because we're not going to get tolerant. They will be resistant.

That's with clubroot in canola, which I think Mr. Goudreau referred to. They are now developing strains of canola that are clubroot resistant, and most farmers now in my area use a canola variety that's resistant. That's where we want to get to. The end goal is to develop the ones, the wheat and barley varieties, that will be resistant, and right now we really can't do that with a zero-tolerance policy.

**Mr. Young:** Just on this point, until we get to that silver bullet, I think we need to have the strategies and whatever the scientists think is the best strategy for this. I'm just advocating that there needs to be an enforcement part. If you have the resistant strains, it's less of an enforcement; it's just a matter of a technological solution that's going to be able to deal with this. I really applaud Ron for bringing this up. I think it needs to be part of the strategy, the enforcement part of it. Otherwise, we're just putting in a bunch of hints or recommendations that are going to sit in a binder on a shelf, and they will not be operationalized. We need this to be operationalized at the field level, where it actually matters.

**The Chair:** Thank you, Mr. Young.

Next we have Mr. Goudreau, followed by Ms Calahasen.

**Mr. Goudreau:** Thanks, Mr. Chair. I'm just going to quote something, and I don't know the individual. It's B. Cross, I'm assuming a producer, and he does identify himself as a producer here. It says that Fusarium is known to cut grain yields by up to half. Fusarium graminearum can also cost "additional cleanout losses of 30 per cent or more." Then factor in the decreased grade, and you've got a major issue. That's his comment.

Now, if I carry that forward – and I know 50 per cent is very extremist. It's the end of the scale most likely. The MD of Smoky River typically has about a million acres, 50 per cent of which are sown into wheat, and if there were a major infestation there – and I'll use a very low wheat production possibility. About 50 per cent of those acres, or half a million acres, are in wheat. At 40 bushels an acre that's 20 million bushels being produced out of the MD of Smoky River. If we cut that in half, that's a 10 million bushel loss just for that small municipality if we were to hit this extreme. At eight bucks a bushel, quite a low price considering the last couple of years or maybe a fairly average price, that's an \$80 million potential loss in one small municipality alone to our producers.

I say that because I'm still not convinced that by loosening things up, you know, we're going to gain. Seed producers are going to gain, but everybody else, it seems, will lose by it.

I agree. I think we've got some resistant strains already being developed and some coming down. To me, until we've got confidence in those strains and they can be adopted into new or production management on individual farms, then let's put our emphasis on the research and development of resistant strains and maybe, you know, pesticide, fungicide of a type of that might control some of these kinds of things rather than saying: we'll open it all up to the world.

I'm not sure, as well, what the Canadian export limit is for Fusarium, what percentage we can sell. I don't have those figures, at the end.

**Ms Kubinec:** I think it's 5 per cent. Am I right, there, 5 per cent, the export level?

**Mr. Goudreau:** For wheat, human-consumption wheat?

**Ms Kubinec:** I think it depends on the variety. There are different varieties of wheat and barley and whether it's number 1 or number 2. So there are different levels, but I think it's as high as 5 per cent in some.

**Mr. Goudreau:** Yeah. We need to verify that and see where that is because we certainly don't want to, you know, make our export opportunities a little bit more difficult because of those things.

I know the minute you start blending grain, you're using good grain with – typically that's what happens. They'll take a poor quality grain, and they'll try to bring up the grade by mixing. Presently there are some pretty good grains out there that are not infected with Fusarium that can be used to blend with those that have infected lots to bring it down below health standards; for instance, whether it's feeding livestock.

I'm not sure – Dr. Calpas, you might be able to find out – of, like, the human levels of Fusarium and the impact that's there.

**Dr. Calpas:** Well, there are levels. There's a little confusion. What the Fusarium produces is a fungus. A part of its activity on the heads produces a toxin.

**Mr. Goudreau:** That's right.

**Dr. Calpas:** It's a toxin, and we do have those levels. There are a lot of levels, I mean, as low as zero for the equation in baby foods and for livestock about .5 per cent to 5 ppm, actually, of DON. So we do have those levels. And hogs are more susceptible and then poultry and then beef cattle.

**Mr. Goudreau:** We can't confuse ppm with percentage.

**Dr. Calpas:** That's correct.

**Mr. Goudreau:** We've got to be careful what we're talking about.

**Dr. Calpas:** Parts per million.

**Dr. Brown:** Did you say one-half of 1 per cent or parts per million? You said .5 per cent, did you not?

**Dr. Calpas:** Parts per million.

**Dr. Brown:** Point five parts per million.

**Dr. Calpas:** Parts per million, yes.

**Dr. Brown:** That's one part per two million.

**Dr. Calpas:** In baby food, for example, in the EU about five years ago they had a .1 parts per million allowable limit. Now it's zero. So this is a toxin we are quite well aware of. I don't have all the figures here, but I do have some. If you require it, I can get them for the committee.

**The Chair:** Now, folks, if I may, I'd encourage this round of questioning to be specific to Ms Kubinec and her bill. We have Dr. Calpas and Dr. Feindel, who will be providing testimony on Fusarium, and we'll learn a lot more about the specifics of Fusarium, and those questions may be more appropriate after the good doctors do their presentation.

Mr. Goudreau, does that conclude your line of questions?

**Mr. Goudreau:** The other, maybe, quick comment that I want – we talk about disease and the spread of disease, and I would hope that eventually our colleagues or specialists will talk about that. We talk about wind-borne spores. It's my understanding that with Fusarium wind certainly is a factor, but it's not carried. Like, usually it's carried relatively short distances. We're not talking hundreds of miles here. There's no doubt that a possibility of long-distance travel is still a threat, but it's the physical movement of actual infected grains that's more of a threat than wind, in my opinion.

**The Chair:** Ms Kubinec, you may reply.

**Ms Kubinec:** I did get those figures that Mr. Goudreau was looking for. The Canadian grain regulation under the Canada Grain Act states that all grains entering and/or leaving Canada must not exceed Fusarium levels of .2 per cent. For barley this tolerance is also at .2 per cent. Depending on the grade, wheat tolerance for Fusarium can be as low as 1 per cent and as high as 5 per cent.

**Mr. Goudreau:** Okay. Thanks, Maureen.

10:50

**The Chair:** Thank you, Ms Kubinec.

Next up we have Ms Calahasen.

**Ms Calahasen:** Thank you very much, Chair. I like fungus, mostly because we use it for personal and ceremonial purposes, so

I'm a fungus lover. Unfortunately, I guess, my producers do not like it. They don't think this fungus is specific to being liked. They tell me: we're great without Fusarium, and as little as possible is even better. They are telling me: slow down; whatever it is that you can do to make – you slow down diseases. You don't increase the diseases. They've been really, really quite vocal about their position on this specific one.

My question for you, Maureen, is: what's the impact – I think Mr. Goudreau hit on it – on the export sales if we do this change to the bill, if we change it from zero to .5? Is that what it is?

**Ms Kubinec:** Yeah, .5.

**Ms Calahasen:** What's the impact on the export of our grains?

**Ms Kubinec:** I don't have that.

**Ms Calahasen:** Okay. We can get that later.

**Ms Kubinec:** Yeah. We can get that. I don't have that figure.

**Ms Calahasen:** Thank you.

**The Chair:** Thank you, Ms Calahasen.

Any more questions for Ms Kubinec specific to her presentation of the bill?

Very well, then. We'll continue to proceed here. Next I would like to invite our guests from Agricultural and Rural Development to give us more of a technical briefing on the topic of Bill 201 and Fusarium head blight. About 20 minutes have been set aside for this part of the meeting. If possible I would ask committee members to keep their comments and questions until the end of the presentation. I'll make a note of a speaking list as we go along.

Dr. James Calpas and Dr. David Feindel, thank you very much for joining us today. If you're ready, gentlemen, you may proceed.

**Dr. Calpas:** Well, thank you, Mr. Chairman and members of the committee, for the invitation to the Ministry of Agricultural and Rural Development to deliver this technical briefing on Fusarium head blight today. Dr. Feindel, director of pest surveillance branch, and myself, executive director, crop research and extension division, will do our best to answer your questions about this disease of cereals and the current state of this disease in the province. Both of us have considerable experience dealing with the issues around Fusarium graminearum.

We also want to acknowledge Dr. Michael Harding, who's one of our research plant pathologists, for his work in developing the presentation. Dr. Harding is stationed at the Crop Diversification Centre south of Brooks and is unable to participate in the meeting today as he is working on establishing his research trials for the year.

Now, I believe you have the briefing notes and a copy of the slide presentation in front of you. Certainly, we have the slides ahead, up on the screen. I'll now, with your permission, speak to those slides.

The first slide shows you what a severe infection of Fusarium head blight looks like in the field. The wheat in the picture is at a stage when the grains are filling in the heads. The white heads are those that have been severely infected by Fusarium graminearum and are dead. No grain will result from these plants, and this represents a serious loss in yield.

**Ms L. Johnson:** Could someone go up and point which is which? I don't know. That one's a dead one?

**Dr. Calpas:** Those are the bleached heads, the white heads.

**Ms L. Johnson:** Okay. I see. Thank you.

**Dr. Calpas:** Now if you go down to the lower right-hand . . .

**Ms L. Johnson:** Oh. The green one is a healthy one?

**Dr. Calpas:** Apparently healthy. That's what they all should be looking like at this point. At this point the plant is filling those heads. What is not shown in this image is that the apparently healthy, greener heads of wheat are likely also infected and may still form grains, some of which will be damaged and contain toxins that are a result of the fungal infection.

Slide 2. This slide demonstrates that Fusarium head blight is caused by fungal pathogens. There are in fact a number of Fusarium species that can cause Fusarium head blight, the most aggressive of which is *Fusarium graminearum*. This is the species that we have focused on in Alberta. *Fusarium graminearum* is a named pest under the Agricultural Pests Act.

This slide illustrates that the field infections of *Fusarium graminearum* head blight are the result of spores of *Fusarium graminearum* that develop on crop residue in and around the field. Although *Fusarium graminearum* is able to survive on infected seed, this seed is not a significant source of infection for the crop in that year of seeding. Seed infection is, however, a significant risk for introducing *Fusarium graminearum* into areas where it is not currently established. Once the pathogen is introduced into an area via seed, it can then start to slowly build up in cereal crop residues. Seed-borne infection can introduce the disease over long distances by shipping seed, et cetera. *Fusarium* spores are responsible for localized, field-level spread of the disease.

This slide – and I'll explain the acronyms – illustrates the FDK, which is the Fusarium-damaged kernels. In the top half of that image the seeds are weak, and those bleached, shrivelled seeds are Fusarium-damaged kernels, also known as or called tombstone kernels. The seeds in the bottom half of that slide are barley that are infected with *Fusarium graminearum* and tend to be more blackened and shrivelled.

In Manitoba and eastern Saskatchewan *Fusarium graminearum* is well established. The weather is the most important factor influencing the development of this disease in a crop. If the weather is conducive, *Fusarium* head blight occurs, resulting in yield loss of 40 to 50 per cent under severe conditions. Grade loss, which is determined by the presence of those Fusarium-damaged kernels, and quality loss, which is the functional, end-use characteristics of the grain, can be affected by the presence of the *Fusarium* mycotoxins, for example. Mycotoxins do have implications for human and animal health.

*Fusarium* head blight is a difficult disease to control. There are no resistant cereal varieties. There are no chemicals that provide control, only suppression at best. Producers are managing the risk in Manitoba and eastern Saskatchewan to some extent, but the level, again, and severity of the disease is largely dependent on the weather.

Where did this disease come from? *Fusarium graminearum* was first reported in Canada in 1919. *Fusarium graminearum* has been moving west from Manitoba and Saskatchewan since the 1970s and '80s. In Alberta we recognize that this was the result of considerable field-to-field westward spreading, a slow process or slower process, combined with the spread of the disease over longer distances via infected seed.

A zero-tolerance policy for *Fusarium graminearum* in cereal seed for sowing crops was put into effect in the *Fusarium graminearum* response plan, that outlines the control measures to be enforced under the Agricultural Pests Act. Zero tolerance

meant that seed lots required a test to be done on a sample of 200 seeds from the seed lot and a certificate from the lab conducting the tests stating that *Fusarium graminearum* was not detected in order for that seed lot to be used for sowing a crop in Alberta. The intent of this approach was to prevent the long-distance spread and introduction of the pathogen into the province through infected seed in an attempt to delay the disease from establishing in the province.

The current situation in Alberta, as outlined by the map – the red is where *Fusarium* has been found in the counties where it has been found – is that *Fusarium graminearum* is established in the province. It is commonly reported in southern Alberta. It occasionally appears in central and northern Alberta.

This slide is a little bit difficult. I can explain some of it, the colours. This slide demonstrates the prevalence of the disease in the province over the last three years – the data comes from seed test results – and you can see how the distribution of the disease has increased over the three years. You can see that the darker the red colour, the higher the incidence of the disease, with the darkest red representing 50 to 60 per cent of the seed samples submitted from the area testing positive for *Fusarium graminearum* in that year. In 2012 an extensive field survey was conducted by Alberta Agriculture and Rural Development and confirmed that *Fusarium graminearum* was commonly found in southern Alberta cereal and corn fields.

This is the last slide. I'll continue with a little bit more explanation. Now that the disease is established in the province, it's important to keep in mind that *Fusarium* will continue to spread across the province. It's a biological entity, and it's exploiting a resource, which happens to be our crops.

**11:00**

There are no known environmental or geographic factors that would prevent *Fusarium graminearum* from spreading across Alberta. However, like all pests responding to multiple environmental and agricultural cues, it is not possible to predict *Fusarium graminearum*'s adaptability or rate of spread with certainty. Because the disease is commonly found and established in crop residues, seed-borne infections are no longer a concern for introducing the disease to where it is already now well established.

Alberta Agriculture had a third-party, science-based review of our *Fusarium graminearum* response plan conducted to address concerns of southern Alberta stakeholders who are experiencing hardship as a result of the zero-tolerance policy. Now, it's very difficult to produce seed that contains nondetectable levels of *Fusarium graminearum* in areas where the pathogen is well established. The key question was whether we could move away from the zero-tolerance policy for *Fusarium graminearum* on seed intended for use in sowing crops. Could we do that?

The review indicated that the establishment of areas in the province where *Fusarium graminearum* is commonly found with identified allowable limit of *Fusarium graminearum* in seed required for sowing and where it is not commonly found, maintaining a zero tolerance for *Fusarium graminearum* in seed for sowing, could be implemented with a low risk of increasing the risk of rate of spread of *Fusarium graminearum* to areas of the province where it currently is not commonly found. The review suggested levels of 5 to 10 per cent of *Fusarium graminearum* infection in seed for areas where *Fusarium graminearum* was commonly found, provided that the seed was also treated with a fungicide registered for use against *Fusarium* species.

Agriculture and Rural Development staff are currently considering the recommendation of a 5 per cent allowable limit of *Fusarium graminearum* infection in seed for use in commonly

found areas. This seed would also have to be treated with a registered fungicide.

Bill 201's proposed level of .5 per cent *Fusarium graminearum* infection would apply to the entire province, not just the commonly found areas. It's practically no different from the zero-tolerance policy, and I'll explain that. The seed plating test is the test currently used for *Fusarium graminearum* detection in seed, and it has a detection limit of .5 per cent. The test uses a subsample of 200 seeds from the seed lot in question. Under zero tolerance the seed lot is rejected if *Fusarium graminearum* is found on one or more seeds. With an allowable limit of .5 per cent, the seed lot would be rejected if *Fusarium graminearum* is found on two or more seeds of the 200. With a 5 per cent allowable infection level for use in commonly found areas, the seed lot would be rejected if *Fusarium graminearum* is found on 11 or more of the 200 seeds.

This essentially completes my presentation on this, but I would like to say one last important point. We recognize and think that those of you in the room also recognize that the topic of how to manage *Fusarium graminearum* in this province is highly contentious among the producers.

Thank you.

**The Chair:** Dr. Calpas, thank you so very much for your presentation.

We will open the floor up to questions. We'll start with Ms Johnson. Ms Johnson, please proceed.

**Ms L. Johnson:** Thank you, and thank you for your presentation. As an urban MLA I'm learning a whole lot. As I say to people, you never know in this job what you're going to learn. I find it fascinating, the financial impact that MLA Goudreau brought up, in working this all through.

I have two questions based on your presentation. Seed-borne disease establishment: you had a phrase in there. If you could go back and restate that. I don't come from a farming background, so I just want to make sure that I understand that properly.

Then if you could explain the seed plate testing limit of 1 per cent. If I understood what you said, if it had a higher percentage, the way the test is run, we wouldn't know. If you could clarify that.

If you could answer those two, and then we'll come to my third question.

**Dr. Calpas:** Okay. The first one, on seed-borne infection, is that the pathogen can survive on seed. In that first slide you saw, there was infection in the heads, *Fusarium*-damaged kernels. The fungus can survive on seed, even if it apparently looks healthy, coming from those heads. So if you have infected seed and you travel a distance with that seed, the fungus is carried with that seed.

If you use that seed for sowing, there's an implication that if you're sowing that seed in an area that does not have the disease established anywhere around it – you want to avoid that. If you seed that seed in an area where the disease is well established, if the disease is well established in the stubble and the plant residue around the field, the potential for that disease to produce a high amount of inoculum, or disease-causing potential, comes primarily from the fungus on the residue. The introduction of a small amount of fungus on the seed does not have any negative implications to the crop, necessarily, in that given year. In other words, that fungus has to get into the soil. It may take out a small seedling or two, and then it starts to build up. It's the concept that with the amount of disease-causing potential coming in with a seed in a given year compared to the amount of potential that

exists around the field, you know, where it's well established, that seed poses a smaller risk.

**Ms L. Johnson:** Okay. Thank you.

**Dr. Calpas:** Your second question deals with the plating test for *Fusarium graminearum*. The test relies on a sample of 200 seeds per seed lot. Those 200 seeds are plated on agar dishes so we can actually see if a living fungus comes out of that, grows out of it, if it's *Fusarium graminearum*. For detection limits and zero tolerance, if one seed demonstrated *Fusarium graminearum* coming off that plating test, that lot would then be rejected, could not be used for seed.

Under a .5 per cent infection level – that's the detection limit – one seed in 200 is .5 per cent. If the detection limit was .5 per cent, one seed showing up on the plate would be .5 per cent. The bill proposes that it has to be above .5 per cent to be determined a pest, and you would require two seeds to show up positive to reject the seed lot. At the .5 per cent level, if you found one seed in that test that was positive, you'd still be clear to use it for seed.

**Ms L. Johnson:** Okay. Thank you.

I don't know if you're the people to answer the question or whether we bring another presenter in to the committee, but I'd like to know a little bit more about how the Agricultural Pests Act operates in Alberta because that gets back to our whole enforcement question.

**Dr. Calpas:** I think I can address that.

**Ms L. Johnson:** Can you address that? Then please do.

**Dr. Calpas:** The Alberta Agricultural Pests Act is administered by our ministry, and it's administered through my division. Essentially, the purpose of the act is to give the province and its stakeholders the power to work together to reduce the negative economic impact of diseases on agriculture. Through the regulations and through consultations with stakeholders we have named pests under the act. Once a pest is named, then we have compliance and control measures where we have to demonstrate that we're doing something to contain the disease or pest in question. Just for the record rats, grasshoppers, and other things are also included under the Agricultural Pests Act but specifically *Fusarium graminearum*.

The department and the expertise of the department come up with control measures and strategies that are used in response plans or management plans to control pests under the act. Specifically, with *Fusarium graminearum* we have a management plan. The enforcement of the act is done through our partners, the agricultural fieldmen, with backup from the province.

**Ms L. Johnson:** I was under the impression that municipalities have a role in it as well.

**Dr. Calpas:** Yes. The agricultural fieldmen are out in the municipalities.

**Ms L. Johnson:** Okay. There you go. That proves the learning curve I'm on today.

Thank you very much.

**The Chair:** Thank you, Ms Johnson.

We've got a growing list. On my list I have next up Mr. Casey, followed by Mr. Goudreau, followed by Ms Calahasen. For those folks who are joining us via teleconference, anybody wish to join that speaking list?

**Mr. Hale:** Yes. I'd like to get on that, please.

**The Chair:** Okay. Thank you, Mr. Hale. We'll put you on the list. As well, we've got Dr. Brown.

We can proceed with Mr. Casey.

*11:10*

**Mr. Casey:** Thank you. I just had a question around seed that's used for livestock feed. Is there any testing of livestock feed for this disease? If there is or isn't, is there a potential for the spread of the disease through the utilization of the seed for livestock?

**Dr. Calpas:** There is testing that can be conducted on seed intended for use as feed. That's usually left to the person that's intending to use the seed lot as feed. There are limits, and they're out there to be aware of. For hogs you want it as low as possible. At 5 ppm of toxin in the feed you see significant gain losses in animals. But it's up to producers to know what they are. They're established, and they're out there. We know what we can put through cattle and that cattle are reasonably tolerant and that feeding Fusarium-infected grain through cattle actually reduces the inoculum. It helps to kill the pathogen. That's part of the strategy or at least part of what we know.

We have to be careful. Some of the concerns that we have about feeding in areas where we have zero tolerance or where we are managing this disease is that if you know you're feeding this lot, be careful you're not spilling – how you feed is important – so that we're not seeing establishment around feedlots. We are dealing with a biological entity and trying to understand how it operates in a situation where we're trying to make a living and in one of the economic engines of the province, agriculture.

**Mr. Casey:** I guess, just really quickly, there's no opportunity, then, for the spread of the disease through the manure being spread on fields and so on?

**Dr. Calpas:** As long as you ensure that all grain that went into that manure is not spilled grain, that it went through the cow, it's reduced. The risk is reduced. But we still have management options or plans to guide folks in how they use this.

**The Chair:** Thank you, Mr. Casey.

We have Mr. Goudreau next on the list.

**Mr. Goudreau:** Well, Dr. Calpas and Dr. Feindel, thank you for your presentation. I want to start by saying thank you for bringing up rats under the Ag Pests Act, you know, the same as Fusarium. I'm wondering why the difference, why we would spend so much time and energy and effort to control rats under the same act that Fusarium is under. We seem to have let one go and not the other one. I've got a number of little comments that you might comment on after that.

The other one. You talk about seed treatment and a suggestion of using 5 per cent in seed if treated. I'm wondering about the effectiveness of seed treatment. Some research here again: Raxil Pro Shield, which is a seed treatment by Bayer CropScience, in their trials is certainly shown to increase wheat yields in treated over untreated by, in this case here, an average of seven bushels per acre, which is a significant increase, but it still doesn't show the difference from noninfected to that. I guess: what were the noninfected yields? When we see seed treatments, we know they're effective, but it certainly doesn't bring us back to the stage where, growing in a field, they would have not been infected. I'm not sure if you follow my reasoning.

Another one here. Market development trials from 2008 to 2013 with a seed treatment called ProSaro: an increase of 8.2 bushels. The same kind of thing. You advocate if the seed is treated, but we still don't know in those same plots about noninfected seeds.

The final one – and I want to understand it – the DON levels. At what stage are the DON levels starting to impact the production or the growth rates in livestock? I know it's safe up to a certain percentage, but after that and beyond that it starts affecting their productive ability, and our livestock producers – cattle producers, hog producers – get to a stage where it starts to affect their ability to be effective, to have reasonable production rates.

[Dr. Brown in the chair]

**Dr. Feindel:** In terms of the seed treatments, the seed treatments tend to be used to control the Fusarium and other fungal diseases at the seedling stage. Oftentimes it's very difficult to see, in effect, further out into the season because there are so many other factors that affect yield at the end of the season. The reason why we put the seed treatments on is mainly that early seedling rot issue early in the season. You tend not to see it and most of the research won't show it unless there's a heavy disease pressure that takes out a number of plants earlier on. That tends to be what is seen. It's more as a preventative. It's like insurance.

In terms of the DON levels, that would be a bit more case by case, I think, for monogastrics like us as adults. The DON levels, the toxin levels: it's an immunosuppressant. It does a lot of nasty things. For adults normally there's about a one-part-per-million threshold. Anything above one part per million really isn't good for us, whether it's humans or it's swine. Because of the immunosuppressant issue we have a zero tolerance for infants, and we have a zero tolerance even for adults or older individuals that have maybe immune-related issues because this is not a very nice toxin, as most fungal toxins are not nice.

In terms of swine, you know, as a monogastric it will handle a little bit more of the toxin, but once you get up into that two to three parts per million, you start to see an effect on the animals. Up at five parts per million you get some severe growth issues with swine. Cattle: maybe 10 to 12 parts per million because of being ruminants. But, again, it's lower if you have a milk animal or for the young, so it does vary with the type of animal that you're using. I'm not sure. When you get heavily infected grain, you know, when you get 30, 40 parts per million, which we do see in some of the grains in some of the other provinces, Manitoba specifically, it becomes very much unusable.

In terms of the relationship with the fungus it's not a linear relationship. You can have a little bit of the fungus on the seed and a lot of the toxin, or you can have a lot of the fungus and a little bit of the toxin. It depends on the year. It's not a straightforward relationship.

**Mr. Goudreau:** I appreciate those comments. Thank you.

Thank you, Chair.

**The Acting Chair:** Thank you.

Next on the list is Ms Calahasen, followed by Mr. Hale.

**Ms Calahasen:** Thank you, Mr. Chair. I was just looking at some of the information and listening to what you had to say. I'm looking at what you say about zero tolerance in areas where FG is established in crop residues in fields, that seed-borne infections are no longer a concern for introducing a disease to an already well-established area. Then you talk about the third-party review that was done, that 5 to 10 per cent FG-infected seed would be reasonable for use in areas where FG is CF. Then you go on to say

that Bill 201, that my colleague is bringing forward, is no different than the current zero-tolerance level. Can you explain that to me in layman's terms so that I can begin to put it in perspective in terms of what you're trying to say and what you're not saying?

11:20

**Dr. Calpas:** I was looking at, when I said that .5 per cent is practically no different for practical purposes, the level of discrimination of the seed test. We're taking 200 seeds out of a lot, quite a large lot, and we're trying to sample appropriately and get a sense of what's in that seed lot. Whether or not you have no seeds showing up on the test and allow that to go through, like at zero tolerance, or .5 per cent, practically it's very close together. The .5 per cent is the detectable level of finding the disease in a seed sample of 200.

**Ms Calahasen:** On that issue, then, if we're talking about where FG is CF – that is what you say – and that's the allowable, you're saying that the department is looking at 5 per cent versus .5. What led you to that decision?

[Mr. Khan in the chair]

**Dr. Calpas:** Essentially, it was the third-party review.

**Ms Calahasen:** And in that third-party review what did they comment on? Did they comment on the economic market as well as in terms of the international market? Following that, is there a difference between where FG is CF versus FG is NF that would affect the international market?

**Dr. Calpas:** A big question. The approach that we're taking in looking at the levels, whether it's .5 or 5 per cent or 10 per cent or whatever that level is, is really: what is the risk that is posed to an area with a certain level of infection in the seed? With zero tolerance, as I said, we believe that if we do not have the disease in an area in this province, we want to do as much as we can to keep it out, and we don't want it to be seen in the seed. We want it nondetectable in the seed that we're using. Bear in mind that we can only test a sample of a seed lot. We can't ensure with that test that the entire seed lot is free, but we want to do our best to source clean seed for use in an area where Fusarium is not established.

When we talk about considering moving off zero tolerance, the discussion comes around to: what is the biological reality of this disease in our province? Now, this organism does not care about what we think or do, and I know we all realize that, but it's fairly well adapted to establishing here. So in an area where the disease exists, the disease-causing potential to any wheat field that is being grown this year – if the disease is established in the stubble and the residue, that stubble and residue can produce magnitudes more of disease-causing potential of spores that can infect that crop in that year than we would see in a seed lot that was used to sow that crop that may have between a .5 or 5 per cent infection level given that it was an otherwise healthy looking seed with good germination and was well treated. It's just the order of magnitude of where the disease is likely to come from. Is it going to come from that seed in an area that's well established? No. More likely, it's going to come from the residue around it.

Your last question takes me to economics, and I'm not going to go very deep there. I will say that if we look at what has happened in Saskatchewan and Manitoba, where there were no attempts, relatively, to slow that disease – and arguably in Manitoba they didn't have much luck, much chance, because it blew up in about 1995 and took off. The market for grains is what it is. It's our ability to meet that market demand if we can, and that's what we're trying to do. The reality of a situation where we're dealing

with a new pathogen, no matter what it is, is that if it's active in our crops, we have to do as much as we can to make sure that we still have a viable product for market. If we have no pathogen, if *Fusarium graminearum* is not established in this province, we don't have to worry about the negative effects of it. If it's established, we still have to try to manage it to the best of our ability to get some good crop to market.

The impact is really on our down-home economics, how we're going to do on the farm. So why we would even consider, knowing how serious *Fusarium graminearum* is, that we would move off zero tolerance for seed is that the risk is low for introducing the disease, certainly. Also, the line of defence, where we are now working on managing this disease, is beyond that, and where weather is a primary factor that determines whether we have a serious infection and infestation in any given year, that's the level that we're dealing with now.

**Ms Calahasen:** Then if that's the case, if you're going to move off the zero tolerance and if the recommendation is to go to 5 per cent, how would you deal with the enforcement, which seems to be the biggest issue? Is it just a way to be able to move off enforcement and then move to 5 per cent versus trying to deal with the enforcement issues?

**Dr. Calpas:** I don't believe it is. Our take on enforcement is compliance first. Our approach to managing these diseases and other diseases and other pests is to get as much information out into the hands of producers as possible on how to manage this disease, good management practices. I focused on seed in my presentation because it's primarily where the tolerance levels are discussed. There's a management plan that deals with how you deal with infected grain and feed, et cetera, so it's part of a larger, comprehensive package. But we also recognize in this that we are not in control of this. We are responding to it and trying to manage it. We try to manage with knowledge, and we work with our enforcement partners to help them, if there is an issue that they're dealing with, to write the notice, to enforce the act.

In areas where the disease is well established – and this is a conundrum – if you're a seed grower, for example, it's practically impossible to grow *Fusarium graminearum*-free seed, yet our seed may be of better quality than anywhere else, maybe than from Saskatchewan or Manitoba potentially. If the disease is well established in the neighbourhood where you're trying to grow disease-free seed and you can't quite do it, the risk that your seed poses to any crop in any given year is significantly reduced. It's minimal.

Now, the risk of introducing it in those areas where it's not commonly found: that's still significant. What we would recommend and we're still recommending is, as Maureen pointed out, to continue to do what you're doing, and we'll continue to support you in your enforcement of that. Whether we draw the line for enforcement at Saskatchewan or where the disease is commonly found, we still have the same job to do on the other side of that line. If you look at the Peace region and southern Alberta, producers in the Peace are using clean seed. They still can slow the progression of the disease. Also, bear in mind that given the weather this disease will creep.

**Ms Calahasen:** On that note, then, you talk about good management practices, which is good because I think that's what everybody wants to do, right? How, then, are you going to make sure that those people who are disease free continue to have good management practices versus those that are not disease free that may have good management practices but are full of disease? How

are we going to be able to make sure that there is a difference there, and how are we going to manage that? Can you explain that to me? I'm just kind of having a hard time determining what good management practices means.

**Dr. Calpas:** For example, good management practices would apply to both areas, only they're more significant, in some ways, in the disease-free areas. But they're also significant in those areas where the disease is established. One good management practice is that if you have a field with Fusarium in it, whether it's in the Peace or the south, under zero tolerance it would be recommended that it be cut and ensiled before the disease goes to maturity. Then you take that field out of cereal production for three, four years. In areas where the disease is well established, we're looking at making sure that you take that field out of cereal production for, we recommend, two to three years. It's trying to break that chain as much as possible.

The disease establishes itself in cereal crop residue but can also establish itself on grass residue and grasses in the boundary areas of the field. Once it's in an area, it's there. I think what we're really getting at here, in my mind – I may be a little bit too simple about it because as scientists we tend to dance on the head of a pin, you know, at times and take a lot of things for granted because we've been working on it for a while – is that once it's there, it's there. We're left with dealing with the fact that it's there. We're also left with the fact of dealing with it where it's not established, to help those areas remain that way. I think the not-commonly-found idea or concept works for that. It would work.

If we stuck to zero tolerance, just for the sake of argument – and I'm fine either way in some ways – the disease is still established. It's still moving. Let's say that it does show up again in the Peace and establishes itself – and it has shown up at low levels once in a while – then is it okay? I think we'll still be following best management practices, and it will be a little bit different.

11:30

**Ms Calahasen:** Thank you.  
Thank you, Mr. Chair.

**The Chair:** Thank you, Ms Calahasen.

Our list has grown, and unfortunately the time allotted for this meeting has not. On my list I have Mr. Hale, Dr. Brown, Mr. Young, Mr. Goudreau, Mr. Casey. As you folks ask your questions, please know that we'll give about 10 more minutes for the round of questioning. We should be able to wrap up the rest of the meeting given the last 20 minutes. If we're running short on time and can't get quite through, what I will do is ask whoever has questions to read those questions into the record, and we'll ask Dr. Calpas and Dr. Feindel if they could give responses in writing to those questions.

That said, Mr. Hale, you are up next, followed by Dr. Brown, Mr. Young, Mr. Goudreau, and Mr. Casey.

**Mr. Hale:** Yes. Thank you, Mr. Chair. I'd like to thank the gentlemen and Ms Kubinec for presenting today. I would like to ask, I guess, to speak a little bit to the management plan and practices about building up resistance, possibly the work being done to look at Fusarium-resistant seeds that are being grown, kind of what's going on there. It's my understanding that to produce grain that doesn't have Fusarium – somebody mentioned at the beginning of the meeting about the measles. You know, you have to inoculate people to fight off the measles. We do that in cattle, give them modified live vaccines so they build up immunity and resistance to certain diseases. Can you just comment on that with the Fusarium and the seed? What's happening with that?

**Dr. Calpas:** Well, certainly, you hit one of the key factors that we're looking at to try to reduce an economic loss due to disease. Generally, when we're at this stage, we have response plans. We're trying to prevent the introduction of a pathogen to give our plant breeders some time to develop resistant varieties, varieties that will still do fairly well with the disease pressure.

Since a while back, when we started having problems in the '70s, '80s, and '90s with Fusarium, plant breeders have been working on developing resistant varieties. The development of a variety takes some time. It can be up to eight years, let's say, to get a variety to market. That's when you already assume that you have a basis for genetic resistance to resist a pathogen that you can put into that crop. With respect to Fusarium, that species is a highly genetically capable organism, that has multiple genes for attacking and methods to attack crops. The upshot of the current state of affairs is that we have not come up to date – I spoke with one of our plant breeders last week, because we have plant breeders in the department, that said: we believe it's going to be very difficult to find a gene or group of genes in the near future that will really stop this pathogen.

We do have basis for resistance. That's how the plant can avoid the pathogen. MLA Kubinec referred to it when she was talking about timing sprays to coincide with the flowering in the wheat or barley at the same time when the pathogen is trying to get in there and cause infection. If we had varieties that flowered a little bit sooner than the spores were released or a little bit afterwards, it's sort of escaping the infection.

The short answer is that we are working very hard, breeders are working very hard on producing resistant varieties. It's a very difficult task.

**Mr. Hale:** Okay. Thank you.

**The Chair:** Thank you, Dr. Calpas.  
Thank you, Mr. Hale.

**Dr. Brown:** Well, I've got a number of questions. I hope I can squeeze them all in here. First of all, you mentioned that it's no longer a concern in areas where it's well established in the same crop year. Presumably, that's because of something to do with the life cycle and the production of spores, which has to happen above the ground. Am I correct in that assumption?

**Dr. Calpas:** Essentially, the seed has to establish first. The pathogen on the seed then has to grow, and it may take out that one seedling because it's a small amount, a massive pathogen if you look at that, or a small amount of disease-causing potential. But adjacent plants that aren't infected will probably remain uninfected.

**Dr. Brown:** Okay. Now, when you talk about how it's not a concern in areas where it's well established, what sort of scale are we talking about there? Could you speak to the smaller scale level on sort of a field-by-field basis in terms of what the residue is there and how it relates to things like crop rotation and zero till and perhaps the summer fallowing and whatnot? In other words, are there areas that are of a smaller scale level which, although they may be within a county that has general infection, are free of this fungus?

**Dr. Calpas:** In areas where the disease is well established, we're looking at – how do you determine that a county or an area has a disease well established? Some of the concepts we're talking about mean that up to over 20 per cent or 25 per cent of the samples coming in for testing are testing positive for this disease.

To address what you're talking about in your question, we're trying to get a gauge on: what is the disease, how well established is it, and is it a possibility to escape disease once you're in an area that may have the disease compared to if we are in the Peace or areas where the disease is not well established? That's why the seed does pose a threat.

The spores can travel field to field. You can have your field, manage it well, have no disease, put cereal in it this year, and given correct conditions, I would say from two fields away, from a distance away, you can have spores blown in. I think you have to be fairly physically separated from any other cereal crop to escape it. That's why we kind of look at an area and try to quantify how we say that it's commonly found, saying that if you're in that area, you're pretty much at risk.

**Dr. Brown:** Yeah. Well, I guess what I'm getting at is that the areas that we're talking about are not necessarily coincident with the geographical boundaries of a county, and your 20 per cent infection rate could be from a certain part of the county and dependent upon what crops are grown in there. For example, in southern Alberta, around the Taber area, you probably get a lot of legumes and lots of vegetables grown. Perhaps you have more insularity to the cereal crop production. Am I making myself understood? In other words, there could be quite large areas where cereal crops are isolated by crop rotation and preferred crops in that area.

**Dr. Calpas:** Well, you're correct. Based on geography, you can in any given year escape a disease. I think one of the biggest factors is whether the weather is conducive to causing the disease. If you're in an area with a lot of legumes, you're really not that concerned about it because it's only small grain cereals that we're concerned about here, so you have that rotation. You have that option. Even in areas where it's well established, if the year isn't conducive to the disease, you can do fairly well.

When we talk about seed, if I knew I was in one of those areas and I didn't have a problem with the disease or was in a county adjoining an area that does have trouble, I would still use clean seed. I'd do my best.

**Dr. Brown:** Are these spores extremely long lived and persistent like most fungal spores?

**Dr. Calpas:** This fungus is quite capable of living on residue in a vegetative state, more likely. Spores: right now I can't tell you how long lived they are. Sorry.

**The Chair:** Okay. Just for the sake of time, Dr. Brown, if you have other questions, can you read them into the record? We'll ask Dr. Calpas and Dr. Feindel to reply in writing to the committee.

**Dr. Brown:** Okay. I'll get some other questions on the record here.

You mentioned the possibility of a regime where you would increase tolerance in these areas where it's well established and whatnot. You spoke a little bit about the application of a fungicide on the seeds in those levels. I wonder if you could speak to the efficacy of the fungicide on the seeds and what the impact of that would be in terms of the spread of the disease.

Furthermore, in terms of the mycotoxin that you spoke of, which sounds like pretty nasty stuff both for humans and animals, could you speak to the relationship between the levels of production of the mycotoxin and the levels of infection and in terms of what the salvageable product would be at the end – I mean, you're not going to be using those ones that are completely

destroyed anyway for animal feed or human consumption – and speak to the level of infection on those things?

**11:40**

Finally, could you advise whether or not there's been any modelling done in terms of how that *Fusarium graminearum* is spreading? If you went back to one of your earlier slides there, with a number of dots on it, it looks like it was remarkably well established in the east and progressively less so to the west. Is that related to the prevailing westerly winds, or is there some other model upon which you could base your estimate of how this stuff is being moved through the province?

**The Chair:** Thank you, Dr. Brown.

We've got Mr. Young and Mr. Goudreau, and I understand Mr. Casey's questions have been answered.

Mr. Young, if you could read your questions into the record again, we'll ask Dr. Calpas and Dr. Feindel to reply in writing.

**Mr. Young:** Well, unfortunately, I don't have a PhD like the good doctor, so mine are going to be a little less pedantic. My question is about the seed cleaning plant and the relationship to the infected seeds. How effective is it in cleaning those out? Having not been to a seed cleaning plant, is it those black little nuggets that they clean out at the seed cleaning plant? What effect does the seed cleaning have on the infected seeds?

**Dr. Calpas:** This is for later, where we respond to this later. Is that it?

**The Chair:** Just for the sake of time, Dr. Calpas, Dr. Feindel, if we could get some brief answers in writing to these questions. They're important questions, and we'd like to have the answers. It's just that given our time allotment here we're not going to be able to get through them.

Mr. Goudreau, we'll come to you for our concluding questions to the doctors.

**Mr. Goudreau:** Yeah. Thank you, Mr. Chair. I guess a couple of things. You did allude to it. One is crop rotations and the impact on the control or trying to minimize the *Fusarium*. I guess that in areas I represent with very, very low livestock population to areas where there's no livestock population, silage certainly doesn't become an alternative. Are there other alternatives there?

Do we have any foliar control, fungicides that can be applied or pesticides that can be applied later on in the growth stage of the crop? If not, how many years are we away from that?

Then the same question on tolerant varieties. We talk about tolerant varieties, and there are some out there. How many years are we away, again, from having some generalized choices for individual producers? I use a very rudimentary example of economic losses, for instance the MD of Smoky River, with half a million acres under wheat production. There has to be some information out there with more detailed information about economic losses right across western Canada as well in those areas that have experienced *Fusarium*, that have *Fusarium*, versus those areas that don't have any.

Thank you.

**The Chair:** Thank you, Mr. Goudreau.

I do want to certainly take a moment to acknowledge Dr. Calpas and Dr. Feindel. Thank you very much for your presentation and your outstanding answers to our questions. I'll remind you that



we've obligated you to answer some of these questions in writing, and we do thank you for that. If you could be so kind, we'd like for you to send those through to our committee clerk.

Now, with that said, we'll continue on with our agenda, and we'll speak about our process for reviewing Bill 201. Bill 201 has been referred to this committee under Standing Order 74.2. Bill 201 has been referred to this committee prior to having received second reading, which permits us a very broad scope of review. The subject matter of the bill is before the committee, and the committee's role as set out in Standing Order 74.2(1) is to "report its observations, opinions and recommendations with respect to the Bill." In addition, the Assembly has not assigned us a reporting date, so it's entirely up to this committee to determine how much time is needed to conduct our review and to determine the kind of information we need to inform our recommendation.

Once we are ready to report to the Assembly, we will table a report recommending that the bill will either proceed or not proceed, and the House will then decide whether or not it concurs with our report. If we are unable to reach a consensus, minority reports are permitted and will be attached at the end of the committee's report.

Now, moving on to the review of our stakeholders' lists, a draft document with information on possible stakeholders was included with the briefing documents for today's meeting.

Dr. Massolin, would you be kind enough to quickly take us through this document?

**Dr. Massolin:** Yes – thank you, Mr. Chair – I'd be pleased to. I just would like to refer the committee to the document referenced. It's the draft list of prospective stakeholders, which was posted to the committee's website, and I'd ask Ms Zhang to take the committee briefly through that document.

Thank you.

**Ms Zhang:** Thank you, Dr. Massolin. This document is a draft list of prospective stakeholders, and it was compiled through research of some of the ministry's work done on *Fusarium graminearum*, so it includes some of the stakeholders that they've consulted for their *Fusarium* management plan as well as some stakeholders that have come up through other research. We've organized these stakeholders in this document into four categories, but it's ultimately up to the committee how they want to organize the presentations. The stakeholders fall into the groups of government agencies and regulators, agricultural organizations and associations, municipal districts, and academics and experts.

Given today's presentations from the ministry and Ms Kubinec I'd like to suggest that we also include a few additional stakeholders, including Alberta pork producers, given the impact of *Fusarium* on feed for swine, as well as this expert identified in the notes from the ministry, Dr. Andy Tekauz, who was the third-party scientific reviewer of the *Fusarium* management plan, as well as the individual that contacted Ms Kubinec about presenting to the committee, Dr. David Bailey. Is that correct?

**Ms Kubinec:** Bailey. Yeah.

**Ms Zhang:** Okay. Dr. Massolin, would you like to add anything?

**Dr. Massolin:** Yeah. Thank you. Mr. Chair, just a couple of things. As Ms Zhang alluded, this list is a draft list; it's not comprehensive. As ever, the committee may wish to modify, add to, subtract from the list. The other thing I would say in closing is that now it's up to the committee to do that in terms of adopting the list and then

deciding how it wishes to consult with the individuals and the stakeholders on that list.

Thank you.

**The Chair:** Thank you, Ms Zhang, and thank you, Dr. Massolin.

Do we have any questions or some comments as to this list? I'll recognize Mr. Young.

**Mr. Young:** Thank you. I just have a question, and this is about international trade. It seems to me, you know, that we could talk about what we believe is the right thing in Alberta and even in Canada, but when we're being exporters, we're dependent on the regulations of international countries and the EU and other places like that. In terms of their perspective on our standards and our ability to affect international trade, do we have a stakeholder that could comment or speak to that? We can put in all the stuff, but if we've created a barrier to international trade to other countries, it doesn't matter what we think. It really matters where we want to send it if that is part of our economic strategy. So I put it out there: do we have somebody who can comment on international trade standards? We've heard this about the barriers put in for, you know, cattle and other kinds of things because of our various diseases.

**Dr. Brown:** I would think that some of the stakeholders that we have there, Mr. Young, might be able to speak to that directly, the Wheat Board for sure and presumably the barley growers and the wheat growers, who are really in the business of developing export markets and so on. I think they're probably well familiar with those restrictions.

**Mr. Goudreau:** Very specifically, the Canadian Grain Commission.

**The Chair:** Thank you for those comments, Dr. Brown and Mr. Goudreau.

Does that address your concern?

**Mr. Young:** Yep. That was perfect.

**The Chair:** Okay. Fantastic.

**Ms Calahasen:** You know, looking at all the information, I see you have AAMD and C in there as well, but there's not much representation from northern Alberta. I'm just wondering if there's anybody who can give kind of a recommendation as to someone to come and give a perspective from northern Alberta. That's the only place where there's very little, if any, *Fusarium*. I just need to know whether or not we can have somebody, you know, come and give a perspective on that process. I don't know if anybody has any recommendations.

**11:50**

**The Chair:** Given the regional nature, if we can call it that, of this issue and looking at the list, I do agree with your perspective there, Ms Calahasen. Perhaps, if there are not any suggestions from the table, that's something that we can task Dr. Massolin with in terms of trying to gain a regional perspective. I think that from the list we see – and I realize that there are a number of provincial entities, but it might be nice to have a voice from a specific region that's underrepresented. From our list it may appear that the north is so.

Do we have any suggestions for stakeholders who might have that voice?

**Mr. Goudreau:** Well, a number of suggestions. I think the discussions at AAMD and C indicated the need to look at both sides. Certainly, they haven't had strong resolutions one way or the other on Fusarium and whether regulations and rules should change.

One individual that I would suggest again as an AAMD and C rep is Carolyn Kolebaba. I believe she might be vice-president of AAMD and C, comes from the Peace, very much involved as a farmer, has huge farm up in that part of the world. Whether she would be willing or not, I've not checked with her. The other individual that I would suggest is Norm Boulet, ag fieldman, who's certainly very knowledgeable in terms of disease and disease management and control. I think it would be great to have their perspectives.

There are a number of others. You added the pork producers, but I think we need to look at somebody to talk about the human health implications of all of this, whether it's Alberta Health or somebody that understands DON, and that needs to come and tell us . . .

**Dr. Brown:** Medical officer of health, perhaps?

**Mr. Goudreau:** That's right. I would agree. We need to look at that. This goes beyond, you know, just agriculture and agricultural production.

Walter Paszkowski, past ag minister, seed producer up in the Peace Country, might be another good choice to come and present to this particular committee. Again, whether they'd be willing or not, I have not confirmed or checked with them.

The other quick comment: Stan Blade, chief executive officer, Alberta Innovates: Bio Solutions. My understanding is that his position has changed. If he's still there, he won't be there very long. I believe that he's becoming dean of agriculture at the U of A. Whether he might still want to present, I don't know.

**The Chair:** Mr. Goudreau, thank you so very much for those suggestions. I notice Ms Zhang and Dr. Massolin furiously taking notes. We'll be sure to flesh out the list, perhaps with some of those suggestions, as we move forward. Also, thank you for your notes on – that's my understanding in regard to Dr. Blade as well. We'll determine whether Dr. Blade is available to present on behalf of Alberta Innovates or if there's a successor identified in his place.

Back to our discussion, I'll acknowledge Mr. Allen, followed by Mr. Casey.

**Mr. Allen:** Thank you, Mr. Chair. I'm just going through the list as well. It's interesting because Dr. Brown and I just had sort of a side conversation not too long ago regarding one of the slides that Dr. Calpas showed, with all the dots and where they are, and we noticed a huge concentration in southern Manitoba. To me, there would be great value even if we can get a written submission or teleconference or whatever from Manitoba, whether it's the Canadian Wheat Board or the Canadian Grain Commission or someone, as to how they deal with this issue in Manitoba or Saskatchewan, but it seemed to be a bigger concentration in Manitoba.

**The Chair:** Certainly. I do appreciate that, and we do have some provincial partners on our list. Again, Dr. Massolin will take that under advisement, and we'll work on seeing what kinds of contacts in Manitoba we might be able to bring into our inquiry.

Mr. Casey.

**Mr. Casey:** Thank you. To begin with, I mean, we've got a great list here, but there are just simply too many on it. So we need to figure out a way to bring this list down to, you know, the appropriate size because if not, we'll be here a year from now, still hearing presentations.

Just going back to Mr. Goudreau's suggestion around the agricultural fieldmen, on page 3 we have the Association of Alberta Agricultural Fieldmen. I think that's an opportunity there for us to tap into that association and get some representation not only from the north but also from the south so we can hear the different, maybe, opinions of those two groups. We certainly heard from Agriculture and Rural Development that they are definitely seeing a different approach in areas where the disease is prevalent and where it's not evident at all currently. I think it'd be interesting to see those two.

Apart from that, I think if we can get representation here that currently does not have a bias, that represents a province-wide opinion because – of course, this bill is not dealing with this issue the way that Agriculture and Rural Development is suggesting. This bill would apply globally to the entire province. If our job is to deal with this bill, then we need to understand this from a provincial perspective. I think that making sure we have groups that represent a province-wide opinion on this is really important because our mandate is not to break it up, as Alberta Agriculture and Rural Development has suggested, but is simply to look at this bill, which would apply globally to everyone.

**The Chair:** Okay. Thank you for those comments.

**Mr. Goudreau:** I agree with your comments, Ron. The reason why I suggested some producers from the Peace is because even at the AAMD and C level there's been a very definite split. Right across the province I see a split. Within the association of ag fieldmen I believe there's a split as well. That's probably why it's at this level. You know, inasmuch as we can hear provincial representation – and in this case the Alberta ag fieldmen's association is based out of Rocky View, in that part, or their headquarters. I'm not sure that they fully represent the thoughts of all the ag fieldmen. That's a reason to spread it out, but I also agree that we can be listening to individuals here or undergoing hearings all summer if we wanted to.

**The Chair:** I appreciate those comments, Mr. Goudreau.

Coming back to Ms Calahasen's comments and some of your suggestions, we'll be sure to make sure our list is augmented by a broad perspective from all regions in the province. Again, coming back to Mr. Casey's comments, we want to make sure that we also hear from folks who have that broad provincial perspective regardless of bias on this specific issue.

Did you have a follow-up, Mr. Goudreau?

**Mr. Goudreau:** Just a thought, Mr. Chairman. When I look at the people, the National Farmers Union, for instance, certainly they're very, very much involved. If we would encourage a written presentation or a written document from them rather than a formal presentation to us, that might alleviate a lot of travel time on their part, a lot of inquiry time on our part, and I would suggest that maybe half of the group here should be invited to submit in writing rather than attending in person.

**The Chair:** Given the comments and concerns expressed by a number of folks on our committee, as much as we might like for all of the stakeholders to come and do an in-person presentation, I just don't believe, given our time and the issue ahead of us, that that's practical in and of itself. Based on your comments, Mr.

Goudreau, and just the fact of our timetable, we'll work with Dr. Massolin. I'll consult with our deputy chair, we'll take our list, and we'll see who, if it's practical and feasible, is to come and submit in person or perhaps even via video conference. But I think it's fair to say that there will be a number of written submissions from the folks on our list, just in consideration of our time and expense and what we have before us.

Dr. Brown, you had a comment?

**12:00**

**Dr. Brown:** Yes. Well, it was related to Mr. Goudreau's comments. My suggestion was that we should write to some of these stakeholders, if you want to call them that, and find out, first of all, who is willing and able to appear before us but in all cases invite them to make a written submission. Once we find out who might be willing to come before the committee, then we could perhaps choose areas which are well represented and, say, pick one or two individuals from different areas and stakeholder groups, if you want to call them that, to specifically appear before the committee.

**The Chair:** That sounds like a very, very practical suggestion, Dr. Brown. Thank you for that.

Dr. Massolin, do you have any concluding comments on this specific area of our agenda?

**Dr. Massolin:** No, except to say that it sounds like we've heard that the approach here would be, just as Dr. Brown has said, simply to contact the individuals on the list, with the additions that were made, to see who would be willing to present, and then working in conjunction through the chair and deputy chair, we would be able to assemble panels for the in-person presentations. In addition to that, we have written submissions from those who for practical purposes could not appear in person. Does that sound about right?

**The Chair:** That sounds exactly like . . .

**Dr. Brown:** There's one exception, Mr. Chair. I think that it would be prudent to ask them if they wish to make a written submission in any event, not just if they could not come.

**The Chair:** I believe that was covered by Dr. Massolin, so I think we've addressed that issue, Dr. Brown.

In light of this discussion, I've a suggestion for a possible draft motion – I'll just float it out there and see if this sort of captures the spirit of where we're moving here – that would somewhat fall under the guise that

the Standing Committee on Resource Stewardship approve the stakeholder list as revised and that the chair in consultation with the deputy chair be authorized to approve the final presentation schedule.

Does that sound about right? Could we have somebody bring that motion forward, please?

**Ms Calahasen:** Sure. I can bring that motion forward, as was indicated.

**The Chair:** As motioned by Ms Calahasen, all in favour? Are there any opposed? I believe that motion is carried.

Okay. We've covered (c), which is requests for other research. Is that fair to say? Is there one more? Okay. Dr. Massolin.

**Dr. Massolin:** Yeah. Thank you, Mr. Chair. I mean, I can't anticipate exactly what the committee might want, but we've

heard that *Fusarium graminearum* is prominent in the eastern prairies especially, so I was wondering if the committee would like for us in research to investigate what the legislation and policies are in Manitoba and Saskatchewan and perhaps even the adjoining U.S. grain-producing states.

**The Chair:** Any comments to Dr. Massolin?

**Mr. Allen:** That, in fact, was one of my questions to Ms Kubinec, so that would have great value, I think. I think her response was that there was no legislation, either that or that the act was silent. So, yeah, it's important for us to have that.

**The Chair:** Yeah. Dr. Massolin, we very much appreciate that.

**Mr. Allen:** As well, I think it would be important or valuable for us to have a copy of the report from the third-party review that was done.

**The Chair:** Mr. Allen, thank you very much for that.

Let me come back to our agenda, which is requests for other research. I think we've just covered that. At this point is there any other research that members feel we could benefit from at this time?

**Mr. Goudreau:** It would be interesting and, I think, add to our knowledge if we could find out the economic losses that are occurring and be more specific on that. I'm sure the data is around somewhere. It's a matter of putting it together and seeing the impact that *Fusarium* has.

Other countries have *Fusarium* as well, and they're dealing with it in different ways. I'm not sure how detailed we need to go.

**The Chair:** Dr. Massolin, would that be possible?

**Dr. Massolin:** I think if you restricted it to the prairie provinces of Canada, sure.

**The Chair:** Sure. So Manitoba, Saskatchewan, and Alberta. If we could come up with an estimate in terms of the economic impact of *Fusarium*, I'm hearing that the committee would find that very helpful.

**Dr. Massolin:** We'll do our best.

**Ms Calahasen:** The other question I do have has to do with the strategies. Everybody keeps talking about strategies of how to manage it. Is that going to be part of the information you're going to be bringing forward? I'd like to know how the other provinces and even the southern states where there is grain and where there's *Fusarium* are managing the whole issue of this FG.

**Dr. Massolin:** Mr. Chair, I don't know exactly how far we can get into the management strategies, but I believe we can sort of look into the policies.

**Ms Calahasen:** Just generally.

**Dr. Massolin:** Yeah, and the general approaches, for sure. That was, I think, the intention as well. Again, in the absence of legislation, I mean, as Mr. Allen indicated, it's silent, but obviously they're dealing with the problem, right?

**Ms Calahasen:** Thank you.

**The Chair:** We do know that mitigation is a big part of the success. Whether that's the purview of this committee or not is perhaps a little bit of a grey issue, but perhaps things can certainly be covered.

Mr. Casey, you had a comment.

**Mr. Casey:** I think you might have just touched on it. I mean, I think we need to stay focused on the fact that this is about the bill in front of us. This isn't about finding a solution for this. We're not making a recommendation back to Alberta Agriculture. This is about recommending whether this bill move forward or not and whether the approach in this bill is appropriate for the conditions in Alberta. I think as long as we can stay focused on this and realize that this isn't about finding a solution to this disease . . .

**Ms Calahasen:** That wasn't my question. My question was not that, Mr. Chair. It has nothing to do with finding a solution. I'm saying that the strategies that have been mentioned – whatever happens, whatever we decide, is going to impact whatever decision we make, so I'm just asking for information as to what generally is being done.

**The Chair:** I do believe, Ms Calahasen, we understand that. That information will be very useful to our committee's decision moving forward, but I do also thank Mr. Casey for his comments given the purview of our mandate as a committee. Our mandate is to speak specifically to this proposed legislation and make recommendations on the floor of the Assembly.

**Mr. Young:** I guess I'm just sort of expanding on what Mr. Casey was saying. I think our recommendations need to be broader than just simply the specifics of up or down in terms of the bill. I think we can at a principle level make some recommendations, but it's simply not yea or nay because we have all these experts coming in, and I think we're going to garner a certain framework around this issue, and I think we can reflect that.

**The Chair:** Folks, just for the sake of time – I mean, I'm grateful for all the interest and the outstanding discussion that we're having regarding this very important legislation – I'm going to have to carry on with our agenda item (d), the draft review timeline. A draft timeline was included with the briefing materials for this meeting. This document was set out to present a possible work plan which would allow us to complete our review of Bill 201 prior to July. This document is set out as a guide, but of course it can be amended as necessary according to the will of this committee. Are there any comments or questions about our timeline document?

**Mr. Allen:** Motion to adopt.

**The Chair:** I appreciate that. I don't believe we really need a motion to adopt at this moment.

**Ms Calahasen:** The week of June 2 to 9 is very a difficult time.

**The Chair:** That's either the week of June 2 or the week of – so essentially what that's saying is that our next meeting would either be in the first week of June or the second week of June. Again, I remind all of you, as much as we're grateful to have you present, you can always have the option of phoning in, as others have today.

**Dr. Brown:** Mr. Chairman, I think you're being excessively optimistic in terms of the timeline there. If we are to write these individuals, first of all, to invite them to make a written submission and, secondly, to find out who might be interested in

coming before us to make a verbal presentation, I can't see it happening in that short time frame. I think we have to allow people an opportunity to, you know, put a reasonable presentation together in writing, first of all, to get those and then to find out who might be amenable to coming before us. I just think that – what is it? – two weeks, basically, the second or the ninth, is too optimistic. I think we need to extend that deadline.

*12:10*

**The Chair:** Thank you for those comments, Dr. Brown.

**Mr. Casey:** It's going to be difficult to do a timeline until we know actually how many presenters we're dealing with. We've given it to the chair and deputy chair to decide on how many presenters, so can we also leave it up to the chair and deputy chair to decide on an appropriate timeline after we've determined the number of presenters?

**The Chair:** I thank you for those comments, Mr. Casey.

Just as a note to Dr. Brown's comments, I will acknowledge that the schedule before us is optimistic if not a little bit aggressive. Perhaps what we'll do is we'll work with Dr. Massolin on working with our stakeholder list, and if it's all right with the committee, I'll work with our deputy chair, Mr. Hale, and we will revise our target dates as necessary if you're comfortable with that. Okay. Fantastic.

Just moving right along here, we've got our membership and the role of the working group. It's my understanding that this committee has set up a working group that has taken on an active role in planning and co-ordinating the work of this committee. However, as everyone is aware, we've had some recent changes to the membership of the committee, including the chair and the deputy chair. I'd like to take just a moment to revisit the membership of this group and the mandate given to it by this committee.

As far as the membership of the working group is concerned, it consists of the chair and one representative from each of the three opposition parties in the Legislature. The deputy chair has represented the Official Opposition, and we have Ms Blakeman and Mr. Bilous from the Liberals and the NDs respectively. In the past there has also been a PC member other than the chair appointed to this group to allow the chair to play a neutral role in facilitating the group. I understand that Mr. Young has been kind of enough to volunteer himself for the working group.

**Mr. Young:** That's what I hear.

**The Chair:** Thank you so much for that. I can tell by the enthusiasm of our committee members around the table, Mr. Young, that your stepping up is greatly appreciated. We thank you for that.

**Mr. Young:** Well, I'll forgo my acceptance speech, but I thank you for all your support.

**The Chair:** Outstanding.

**Dr. Brown:** Mr. Goudreau, would you feel denied an opportunity if Mr. Young steps in there? I know you have a lot of background knowledge that might be helpful to the committee on that.

**Mr. Goudreau:** Oh, I'm fine. The more individuals that become familiar with the issue, the better off everybody is.

**The Chair:** Yes. Rest assured that Mr. Goudreau's voice will be a large part of this committee group moving forward.

**Mr. Goudreau:** Thank you.

**The Chair:** As far as the mandate of this group it should be clear off the top that the working group receives direction and authority from the committee, and any decisions made are subject to the approval of the committee itself. Our meetings are informal and tend to focus on planning and other matters which assist the committee in conducting its business in a timely fashion. Again, does anyone have questions or suggestions about the role of the working group, specifically the working group, as we move forward?

Terrific. Moving right along, then, I'd like to quickly advise committee members that we have received a couple of e-mails from people regarding Bill 201. Copies will be made available for committee members on the internal website shortly.

Other business: is there any other business at this time that we'd like to discuss?

**Dr. Brown:** I move that we adjourn.

**The Chair:** We're getting there, Dr. Brown.

Date of the next meeting. The committee clerk will contact committee members regarding the date of the next meeting; however, based on the timelines that we've discussed, I expect that we'll be meeting, let me just say, sooner than later. Given the comments of the committee we'll let Dr. Massolin proceed with some work, and we'll get back to you as to when we expect we'll meet next.

Dr. Brown, I think this is your time.

**Dr. Brown:** I think it was a nondebatabable motion, Mr. Chairman.

**The Chair:** I think we have a motion to adjourn from Dr. Brown. Accepted? Any objections? Thank you, folks. That motion is carried. Thank you for your time today.

[The committee adjourned at 12:14 p.m.]





