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PRINCE EDWARD ISLAND

Motion No: 30

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**VERBATIM TRANSCRIPT OF
HOUSE COMMITTEE PROCEEDINGS**

**COMMITTEE: STANDING COMMITTEE ON AGRICULTURE, FORESTRY &
ENVIRONMENT**

Wednesday, March 9, 2005

SUBJECT(S) BEFORE THE COMMITTEE:

Further consideration of Motion No. 30 concerning GMOs (genetically modified organisms)

NOTE:

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COMMITTEE

Wilbur MacDonald, Chair

MEMBERS PRESENT:

Wayne Collins replacing Hon. Mitch Murphy
Wilfred Arsenault
Andy Mooney
Helen MacDonald replacing Eva Rodgerson
Richard Brown

ABSENT:

Fred McCardle
Ron MacKinley

GUESTS:

Part I - PEI Grains and Proteins Council: David Mol
Part II - Grain Growers of Canada and Producer: Alan Ling
Part III - Environmental Health Cooperative: Mark MacDougall,
Jeanne Maki
Part IV - Steven Belaire
Part V - Gary Clausheide

STAFF:

Marian Johnston, Clerk of Committees
Louise Polland
Bob MacGregor

Standing Committee on Agriculture, Forestry & Environment
Wednesday, March 9, 2005
1:00 p.m.

Part I - PEI Grains and Proteins Council: David Mol

Wilbur MacDonald (PC)(Chair): We'll call the meeting to order. We'd ask consideration or any further consideration of the motion? Well, that's what we're going to do, but can we have a motion to accept the minutes, or the agenda, rather?

Richard Brown (L): So moved.

Wilbur MacDonald (PC) (Chair): Okay, all in favour?

Committee Members: Aye!

Wilbur MacDonald (PC) (Chair): Okay. Today we have five presenters. Our first presenter is David Mol from the PEI Grains and Proteins Council. Welcome, David. Just a little bit of a background, so everybody will be comfortable with your background as a farmer and whatever, okay? And then you can give your presentation and then we may have some questions to ask of you, okay?

David Mol: Thank you, Mr. Chairman. My name is David Mol and I live in Charlottetown. I'm here speaking on behalf of the Island Grain and Protein Council, as well as my own business known as Meadowbrook Farms.

Personally, my father and I operate a mixed farm in Winsloe since 1965 and when the cattle market fell to pieces in the early 1980s, we switched to a cash crop, grain production. Our primary focus has been pedigreed seed production. Since then, we grow approximately 1,000 acres of wheat, soybeans and barley.

The Island Grain and Protein Council, which I'm also here representing, represents the broad interests of its membership and as well, we're lobbying on behalf of the grain and protein growers on PEI whenever possible. I guess that's -

Wilbur MacDonald (PC) (Chair): That gives us a good background, David.

David Mol: Okay, thanks, and I'm going to speak both through the presentation on behalf of myself

and the council and I do differentiate on those points. We have, over the years, always been willing to try new crops and have introduced several new varieties to PEI.

Our farm has grown high-protein oats for Quaker as well as food-grade soybeans and buckwheat back in the 1980s. We tried onions, garlic, cauliflower, broccoli, winter rape, spring hybrid, canola, oil-seed radish and others.

We've never shied away from giving new varieties and technology a fair try. Some have succeeded. Some have failed for a variety of reasons. In most cases, it has not been a technology failing, but shifting markets, which caused, in large part, by a cheap food policy under which the federal government has not protected us to the same extent that foreign governments have protected their growers.

Approximately 10 years ago, a promising new technology - genetic modification - was introduced to Roundup Ready soybeans. I attempted to procure this technology for my own seed business, but was refused access to it.

Since the introduction of Roundup Ready soybeans on PEI approximately five years ago, my soybean sales have dropped approximately 60 per cent, as it has for other local seed growers. The adoption by local farmers of this new technology has certainly benefitted local seed retailers and seed production companies located mainly in Ontario and Quebec, but it has had a negative impact on local seed producers.

Having been exposed to the world of genetically modified crops in the rest of the country through my position as the national director of the Canadian Seed Growers Association and having heard the industry debates and discussions on this technology, I felt I had nothing to fear from it. With Roundup Ready soybeans, this, I believe, is true from a food safety perspective.

However, the corporate agenda began taking a shape in which there was no place for many small,

independent seed growers. Monsanto, which controls approximately 90 per cent of the genetically modified business in crops, was not content with licensing this technology to already-established companies or select growers like myself, but rather chose a path of buying up large seed dealerships such as First Line Seeds in Ontario.

This purchase had a direct effect on PEI, as prior to the purchase, the flagship variety from First Line Seeds for our region was a soybean variety called Cabot, just introduced a year earlier. Its yield stood out well above any of the other competitors - approximately 15 to 20 per cent. Truly a dream for any plant breeder.

When Monsanto bought First Line Seeds, they withdrew several conventional varieties which didn't stand up as well as the Roundup Ready varieties and Cabot was one of the varieties that was also removed from the list.

The conventional varieties over the past two years on PEI are compared in trials at the research station here in Harrington, along with Roundup Ready varieties, and over the past two years in PEI trials, the average yield difference between conventional and Roundup Ready has given the conventional varieties an 18 per cent yield benefit.

Actual farmer experience, however, would vary depending on levels of grass and weed presence on their individual farms. I'd suggest that the Roundup Ready technology has increased soybean acreage in the world and it has given farmers another management tool.

If Monsanto was concerned about equitable impact of their technology, then they would have applied the same cost fees and enforcements, etc. on, for example, Brazil and Argentina as they do in Canada.

However, the South American farmer has taken the Roundup Ready technology, pays little or no fees, and many of them re-use their own seed. This clearly puts soybean growers in this country at about a \$30 an acre disadvantage in the world trade.

Monsanto has, in the past year, bought up yet another large seed company with PEI connections; namely Advanta Seeds. It's the largest hybrid

canola seed company in Western Canada which has some production in hybrid seed that's grown on PEI.

My concern of where this type of vertical integration will leave small independent farmers is much greater than that of the principle of modifying crop genetics. Monsanto further threatened my livelihood a few years ago when it attempted to push Roundup Ready wheat onto the marketplace. Much of my business is selling conventionally-bred wheat and if they adhered to the same policy of vertical integration and only retailed Roundup Ready wheat seed on PEI, I'd likely be looking for another line of work.

The difference in this case was that unlike BT corn or Roundup Ready soybeans or canola, the farmers did not need or want this particular Roundup Ready wheat technology and our marketplace certainly didn't want it.

To make a long story short, under heavy pressure from their clients, it was withdrawn, but they were prepared to introduce technology which was widely agreed upon would be economically harmful to almost everyone in the wheat industry in Canada and the US but themselves.

Now I've become more skeptical of the process because the legal process could not have stopped the introduction of Roundup Ready wheat. It was only public persuasion that forced them to withdraw.

A word on the testing protocol used by CFIA: Once a gene assertion has been done on a variety, this new variety must go through a test process for plants with novel traits. As long as this process is required for each new variety or species by a third party, ie. the CFIA, with the appropriate transparency, then I feel relatively safe with the science.

Our variety registration system and the certified seed industry has the best tracking and most comprehensive paper trail in the world. The few minor escapes that have occurred were quickly traced and all crop material was rounded up and dealt with.

To me here, the debate should not be a prolonged discussion of the Frankenfood versus safe food positions. Few of us are really qualified to speak to

or can fully comprehend and digest all of the scientific material published on the subject. If we argue this subject on emotional or lifestyle values, then it's better settled through your choice at the ballot box of politicians sympathetic to your position.

The members of the organization I represent grow all but one of the GE crops common in North America, and that's only because cotton isn't grown here. For many reasons, growers are choosing BT corn, Roundup Ready canola and soybeans on PEI.

For corn producers, many find the BT factor saves lodging and yield is better more due to insect damage, while Roundup Ready corn allows the use of a more effective weed and grass kill without the long-term residue concerns of conventional herbicides.

For Roundup Ready soybeans, which accounts for approximately 50 to 60 per cent of the total acreage here, a convenience of a much broader spray window has allowed for easier compliance to environmental restrictions.

Most conventional, non-organic soybean production requires a pre-emerged herbicide, the timing of which has to be after the planting of a seed and before it pops through the ground, likely a space of only three to five days. This window may have weather conditions under which spraying would be a contravention of the *Pesticide Control Act*. Roundup Ready soybeans allow a window of perhaps three weeks.

Asked why he grew Roundup Ready soybeans, a large hog and potato producer cited not any yield benefit, but a slightly lower herbicide cost and primarily the ability of being able to spray both his soybean and potato crop with one sprayer instead of having to purchase two sprayers to get the job done.

The question of whether the province even has the prerogative without its own parallel system for variety, registration and testing to prevent a PEI farmer from growing illegally registered and CFIA-approved variety must be answered, I would suggest that PEI could not afford either its own registration system or the challenges that it would face.

The questions and challenge I've put to the committee are:

~ Show us farmers why we should voluntarily back away from a science that is currently where the Model A Ford was in the automobile industry.

~ Show us how, as an Island, or at least the large majority of farmland could produce a better net return by being a GMO crop-free zone and not just the organic sector.

~ Show us how you could convince and compensate those fiercely independent landowners called farmers who may not be able to benefit directly from a GMO-free zone.

~ Come back from an Asian trade mission with an order for 10,000 tonnes of food-grade soybeans because we're GMO-free.

~ Come back from Europe with markets because our green Island label guarantees through best farming practices, etc. that we are good stewards of the earth.

~ Come back with an expression of interest that would give us seven to 10 cents a pound more for beef or pork or even a cent more for potatoes because of the Island position.

Then, and only then, will this debate be decided because farmers have no choice but to grow only the most profitable crops in the short term. It is clear that many in society have prepared to legislate us into submission rather than pay us not to use the latest technology. Anything other than a profit-induced voluntary move to becoming a GMO-free zone is totally unacceptable in this fast-moving economy where it seems only farmers are being asked to ignore new technology.

The early agricultural bio-tech promoters made a big mistake by introducing a novel trait into plants that stood only to benefit them and not the consumer at the grocery store shelf. Would we be having this discussion if the first several genetic insertions had been, say, a way to put both Omega-3 from flax and Omega-6 from hemp into carrots or, say, eliminate the trans-fats from all vegetable oils or even butter?

Further questions to consider before this debate can be concluded are as follows:

~ Can we have a GMO-free zone without de facto applying a totally organic standard?

~ Can co-existence, or zones exist with, perhaps, a very strict isolation protocol?

~ Can individual on farm IP, ISO and HACCAP

standards provide adequate buyer reassurance in order to pay a premium for products from that particular farm?

There is obviously a lot more work that needs to be done and a lot more options that need to be explored. In closing, I don't envy the position of this committee that it has been put in as the debate widens and moves away from the real and more pressing question of the day: How do we make farming on PEI both a profitable one and a profession that's worth passing on to our children? I thank the committee for your indulgence.

Wilbur MacDonald (PC) (Chair): Thank you, David. Do we have any questions? Wayne?

Wayne Collins (PC): Thank you for your presentation, David. Did I understand you in your initial remarks here that you were refused GMO soybean seed?

David Mol: As a seed grower, my business is to buy seed at a high-pedigree level, multiply it and sell it as certified seed, and yes, I had - as I saw the business and the wide adoption of this and sales slip away, I made several attempts with seed companies in Ontario who were, we'll say, the chosen children of Monsanto to try to come to some sort of deal where I could also use the technology and produce seed and they've indicated they were quite satisfied with producing the seed there and really retailing it here, so that's -

Wayne Collins (PC): So there's no one right now on Prince Edward Island who is growing GM soybean seed for resale through the system that you talked about, this integrated system of Monsanto?

David Mol: In 2004, there was one company on PEI who apparently was able to make a deal with a company in Quebec who was in the seed business for production, so yes, in 2004, there were approximately 80 acres of Roundup Ready soybean seed production.

Wayne Collins (PC): You mentioned - and again, I'm trying to clarify this - that through conventional soybean seeds, there's an 18 per cent yield benefit versus the Roundup Ready? Could you expand on that a little bit?

David Mol: Roundup Ready soybean varieties come from a conventionally-bred variety initially, and a conventional variety, whatever its yield potential is, then the Roundup gene is inserted in that.

The Roundup gene is a weed herbicide selective control. It's not a yield enhancer. It has nothing to do with yield, and oftentimes, if you put an additional gene in a plant, there's some disruption in terms of what makes it produce that yield, and up until very recently, the conventional varieties, when they've been Roundupized - if I can use that term - yield slightly less.

In fairness, the varieties that the Roundup industry has been going after has mostly been in the heat zone areas for Ontario. In Ontario, the yield difference is much less. Now on PEI in 2003, the yield difference was only 2 per cent. In 2004, the yield difference was 36 per cent. I really haven't looked at why there was such a variance, but the Harrington trials indicate that's the variance in yields.

Wayne Collins (PC): David, do I understand you to say that on behalf of the PEI Grains and Proteins Council that you respect the idea of GMO seed as a tool of agriculture, that it has a legitimate place there?

A lot of questions that you've mentioned here that need to be answered as well, very intriguing questions indeed, but that if the structure of the production and the sale of the GMO seed was altered in some way to make it more inclusive, - ie. that you yourself could grow some of this and sell it - would complete the picture for you? It isn't a question of yes or no, that it's the structure of the sale of the GM that bothers you?

David Mol: It's not quite as simple as that, but I will say that I'm much less concerned with the science. I feel that the science, as long as it goes through a proper set of checks and balances, is a space we're going to be in and as always, it's a case of corporate boardroom decisions, and the South American example brings it quite home to me in that Monsanto's not able to control their royalty recovery in South America like they have in North America, and it has clearly put us farmers at a price disadvantage.

I'm not here suggesting that genetically

engineered foods are bad. I don't think that. I think there are some excellent things sitting there in the wings. I think it's just unfortunate that the genetic alterations that have taken place have really been, as I indicated, less to the benefit of the consumer and less to any health benefits, as it has been to corporate greed.

Wayne Collins (PC): Has it, under this present setup within North America, and through Monsanto and such, is there a benefit, do you think, economically for agriculture in Canada, on Prince Edward Island, the use of GMO or is that yet to be resolved?

David Mol: Yeah, it would probably be easier to answer that question if the Nature Mark potato had been allowed to come on the picture. As of now, the genetic crops are all in the cereal and oil seed basis, and those have been commodities that have been in the basement, price-wise. They've been the commodities that have been used in the trade wars between the US and Europe, so prices have been poor and I don't think that we've seen any improvement in the prices because the Roundup Ready technology in soybeans, I suspect, has allowed for increased production, which wouldn't have otherwise taken place, which might have given a price increase, but whether that's a good or bad thing, that's less an issue of - that's just a case of the market spreads and -

Wayne Collins (PC): Is it fair to say, though, that at this point in time, no farmers on Prince Edward Island are really gaining any great economic advantage through the use of GMO seed, or are they?

David Mol: I wouldn't use the word great. I think there are some farmers who are gaining benefit from it. There are some.

Wayne Collins (PC): But a slight advantage?

David Mol: Slight. We're not talking about crops. You're talking about the difference between \$250 an acre, or maybe \$300 an acre.

Wayne Collins (PC): Input expenses.

David Mol: In terms of returns or gross returns, that sort of thing.

Wayne Collins (PC): All right. Thank you very

much.

Wilbur MacDonald (PC) (Chair): Anyone else? David, I just want a few questions on South America. So South America has taken the Roundup Ready soybeans and they more or less have just taken them and used them and there's no method for -

David Mol: Well, Argentina has about 90 per cent - almost close to 100 per cent of the soybeans grown in Argentina are Roundup Ready soybeans. Argentina has an arrangement with Monsanto because what happened is when they introduced the seed there, farmers simply didn't honour their technical use agreements and they really recognized it was going to be black-marketed all over, and so they have an arrangement where they get some money back from the organizations or the government, but mainly what's happened is when it moved into - in Brazil, it's still technically illegal to grow Roundup Ready soybeans, except, I believe, there's one province or state in Brazil that has legalized it.

But for the rest of Brazil, there's millions of acres. Most of that seed has been imported illegally or smuggled in from Argentina, so right now, I think Monsanto and those two countries are in heavy negotiations trying to figure out how Monsanto can capture some of the revenue stream, which they've lost out simply because the farmers have thumbed their noses up at the technical use agreements and paying the royalties.

Wilbur MacDonald (PC) (Chair): About a month ago or so, it was in the papers that rust had taken over some soybeans in South America. Do you know anything about that? Is Roundup Ready susceptible to rust?

David Mol: Rust has been fairly prevalent in South America for some time. It's a disease that over winters on a host plant and it requires fairly warm weather, so they've had a rust problem and it has nothing to do with the introduction of a Roundup Ready type of soybean and rust is a pathogen.

It's nothing that a herbicide will kill, so the types of chemicals that would treat or slow down rust are not related to this technology that Monsanto has. It has moved into the southern US states. It's mainly airborne. It'll come in and it'll devastate a decimated field of soybeans in a couple of weeks

time.

However, it does require an over-wintering host, so in far as Canada is concerned, we don't appear to have a climate where it will over-winter, but we are within striking distance of the spores being blown up to us in our growing season from the areas where it can over-winter in the States, and so if there's an infection in the southern US states or in the mid-US states, southern Ontario - and we do have wind patterns in PEI, that can bring it up the east coast where we can get the disease in our growing season and affect us, and it is - there's a lot of work currently being done on this. It's a relatively new problem for North America.

Wilbur MacDonald (PC) (Chair): In the example you gave us of the potato farmer and the hog farmer, you said that he had to spray twice. Was he a direct seed grower?

David Mol: Well, no.

Wilbur MacDonald (PC) (Chair): I've grown soybeans and I've never sprayed them -

David Mol: What this is, is a potato farmer who wasn't in potatoes. He was a hog and grain farmer, grew a lot of soybeans, and when he started growing potatoes some years ago, he found that he had a problem.

He needed to - he's planting all of these acres of soybeans spread over a couple of weeks. The sprayer had to be sitting there ready because the beans come out of the ground so fast, you have that very narrow window in which to get your spray on after you've seeded and before it comes through the ground.

Meanwhile, his sprayer is needed. He needed a sprayer for his potato production as well, so he found that he couldn't do both at the same time, and so the main reason that he was using Roundup Ready soybeans was to spread that spraying period in soybeans over three or four weeks - excuse me - where he wouldn't have to worry that if he didn't get the soybeans sprayed today because his sprayer was busy doing potatoes, he could get at it next week and so rather than having to buy a second sprayer, have another tractor, another man operating it, he felt that was the benefit to his operation.

Wilbur MacDonald (PC) (Chair): Okay. The last question I have is I want to turn the questions you asked also around, to turn it around to you. If the province was to make it a GM-zone free or Roundup Ready-free, do you think there's any possibility of down the road - it couldn't happen overnight, obviously - that soybeans - say for example, let's use soybeans - I don't think we can use corn because we don't produce seeded corn. Could soybeans then become valuable down the road because it was GMO-free? Do you think?

David Mol: I guess that - and the short answer is yes and it would depend a bit on what happens to world opinion because really, right now, our only market, good market for food-grade soybeans is Japan. We have about 17 per cent of Japan's food-grade market and that's a much bigger portion that we have of any parts of their soybean market, and that's because Canada's been considered - in soybeans, at least, up until recently - to be GMO-free.

We had a distinction in Canada in the visual appearance of soybeans between a soybean that could be genetically modified - a Roundup Ready soybean, for example. They were all - all that genetics was put in varieties that had what's called a coloured hylum on the bean - a little dark brown where the bean connects to the pod.

That little dot was brown or black or dark, and the food-grade beans all required them to have a clear hylum or basically the same colour as the rest of the seed coat, so if a shipment went to Japan and it was made up of - and there were none of these brown-spotted soybeans in it, there was a strong assurance that these were not a Roundup Ready type of soybean.

However, last year - actually, 2003, I think, was the first year the Ontario Soybean Growers Group or whatever and they have allowed for clear hylum Roundup Ready varieties to come out into the marketplace, so now there's not quite that clear distinction anymore, so it makes it even more important that there be some other way to discern, to guarantee that you have a Roundup Ready or a genetically-free bean if that's what the market in Japan still for their food products. Tofu is demanding that. They aren't demanding that, however, for their industrial-grade products. Their industrial-grade products mostly come from the US and much of that is Roundup Ready crop.

Wilbur MacDonald (PC) (Chair): Is it used for cattle feed or something like that?

David Mol: Or oil and the oil that we all cook with. The same as canola oil. One thing that hasn't come up in some of the discussions here is that, in canola for example. The Roundup Ready gene is not as expressed in the protein molecule, not in the fat molecule. When the canola oil is crushed, canola is crushed and the oil is put out into a - whatever container, that gene is not in the fat molecule. It's only in the protein. So it's left in the byproduct of the cattle feed we'll say. But the oil that you buy on a grocery store shelf, is made up of fat molecules. The genetic modification is not in the fat molecule, it's in the protein molecule.

Wilbur MacDonald (PC) (Chair): I've lost you. Let's just try that again. In the canola when you buy it in the store, it contains the fat volume.

David Mol: Right.

Wilbur MacDonald (PC) (Chair): Why doesn't it contain the other one?

David Mol: Canola is grown as a seed and it goes to a crusher and there is a separation made. The fiber and the other part of the seed, there is a number of other parts of the seed and canola seed contains roughly 40 to 43 per cent oil. The oil molecule is what they're after in terms of putting in that bottle of - or whatever you buy at the store. That's made up of fat molecules. The gene that makes it Roundup Ready canola is in the protein molecule. The protein molecule ends up going out into the fibre as part of the leaf - part of the fibre hull whatever. So that's in the protein part of the extraction and that goes towards cattle feed or whatever other use.

Wilbur MacDonald (PC) (Chair): You did say that you did grow some spring canola.

David Mol: Right, I did.

Wilbur MacDonald (PC) (Chair): Are you still growing it?

David Mol: No I'm not.

Wilbur MacDonald (PC) (Chair): What was your experience with it?

David Mol: We grew a conventional variety of hybrid canola for a company in Manitoba. I think we grew it three years in a row. It grows - I think it has promise here. As I understand - I know a number of the growers that are currently growing it. They're meeting with what I would call from moderate to good success with it. Canola likes cool evenings. It's a germination. It's a factor for pollination. So the yields that they're getting in PEI in hybrid canola production are above what they are in most of the areas in the western provinces. So it's been profitable I believe, for those growers.

Wilbur MacDonald (PC) (Chair): Mainly because of the cool of the evenings?

David Mol: That's a significant factor because the germination is directly related and when you're talking about hybridity you're dealing with - you plant a row of female plants and you plant a row of male plants and these do the pollinating and a lot of that relates directly to the types of evenings and the type of weather conditions conducive for that and the length of time that the flower will stay open is directly related to the cool temperatures as opposed to hot stressful periods of time. So the hybridity levels that the PEI growers are getting are above average and as I understand, the seed quality is also above average.

Wilbur MacDonald (PC) (Chair): I see. And is there much difference in the canola between Roundup Ready and conventional? Do you know? Has it been here long enough to test that?

David Mol: About 90 per cent of the canola that's produced - well no over 80 per cent produced in Canada is of a genetically engineered type. There is more than Roundup Ready, there is Pursuit Smart and Liberty Link as well. Yes, the breeding program and the genetics that have gone into the canola have allowed for the genetically engineered canola varieties to be better yielding than the conventional canola varieties.

Wilbur MacDonald (PC) (Chair): Not necessarily Roundup Ready.

David Mol: But not necessarily Roundup Ready.

Wilbur MacDonald (PC) (Chair): Wayne.

Wayne Collins (PC): Is there any difference in the oil content of a canola seed, conventional versus

genetically engineered?

David Mol: That I don't know. I can't express an opinion on it.

Wilbur MacDonald (PC) (Chair): Any other questions?

Okay, David. Thank you very much. We might have some questions. We might channel out to you later.

David Mol: I'll stay around for awhile.

Wilbur MacDonald (PC) (Chair): We have a (Indistinct) the growing of the seed and so on. That's a possibility if we get - okay?

David Mol: Certainly.

Wilbur MacDonald (PC) (Chair): Thank you very much.

Part II - Grain Growers of Canada and Producer: Alan Ling

The next presenter is Alan Ling. He's from the Grain Growers of Canada. And Alan, of course, is a local farmer and a producer. We kind of look forward to Alan's comments because he has a lot of history of farming in PEI. Perhaps I gave your background, did I?

Alan Ling: It's okay, keep going.

Wilbur MacDonald (PC) (Chair): Keep going?

Alan Ling: Yeah.

Wilbur MacDonald (PC) (Chair): Oh, I could keep going but I better not.

Alan Ling: Okay. Well, thank you committee and Mr. Chairman. It's a pleasure to be here. I'd like to thank the committee for allowing this debate on a very important subject which is also very important, I believe, to the economy of Prince Edward Island.

As chairman of the Atlantic Grains Council and director of the Grain Growers of Canada and a farmer, I feel it is necessary to express my views on this subject of GMO's. What I'm going to do is basically refer to my own personal farming

practices and the policies of the Grain Growers of Canada and talk about their policies a little bit.

First of all, I do not pretend to be a scientist or a biologist. However, after 35 plus years as an agriculture producer, I feel that I have considerable experience producing both livestock and field crops. This has given me a fair insight also into agriculture economics. I'm also a believer in modern technology. I don't believe we can farm the way we did 20 years ago. Canada is a large agriculture exporting country. I believe the figure was something like 26 billion in ag-food products last year. Somewhere's between 5 and 7 billion came from grains and oil seeds.

We also are a very high cost producing country due to our climate, geography and many other reasons. We must compete on a world market with low cost producing countries such as Brazil. Government's, provincially and federally, have used short-sighted programs compared to the US and European unions for their farmers. One must ask, and I think it's a very important question, where are the future farmers going to come from and who is going to produce Canadian food in the future? If agriculture as we know it today is going to survive in Canada, we need all the tools available to us.

Our fifth generation farm is situated in the Wheatley River area. My brother and I produce about 300 acres each of hay, barley, wheat and soybeans. We also tried a bit of flax last year which was quite interesting. We also have a livestock operation where we produce from 12 to 1500 hogs a year and approximately 300 slaughter cattle. We trade land with a potato and carrot farmer and use good crop rotation and really did not need to be legislated into a crop rotation.

We do not use unnecessary chemical sprays on our crops or drugs on livestock. In order to produce agriculture products, we must use science-based crop and livestock protectants. One form of modern technology that we use is GMO soybeans. Approximately a third of our soybean acreage would be Roundup Ready soybeans. We plant these beans on land that has a weed problem. A normal weed control on conventional soybeans, we would use a chemical called Sencor or Linuron at a cost of about \$20 per acre. This must be sprayed on the bare soil before the crop emerges. There is a danger there. If you happen to have a heavy rain immediately after spraying or a

high wind such as last night and today, you could lose some of that chemical into the rivers or atmosphere or wherever. Also, we've found over the years with this spray that the conditions has to be right in order for the spray to become active in order for it to get a good weed control.

If this doesn't work and the case in point was last year it didn't, we had to go in and spray with different chemicals and the cost went up to roughly 40 to \$60 dollars per acre. When we sprayed with Roundup, in order to get a weed control on Roundup Ready beans, we go in with one litre of Roundup at a cost of about \$10 an acre, after the crop is well emerged and there is a good canopy over the field. One thing when you used to spray Roundup, if it hits the bare soil, it becomes inactive. Roundup has to land on the weed, on the plant, on the leaf and it goes down into the root system and destroys the root system.

Now there is disadvantages to growing Roundup Ready soybeans and one of that is of course, the company controls the seed. In the case of Monsanto, we used to have to sign a technology agreement. I don't believe we did that last year. But you cannot keep that seed and replant it as you can your own bin run seed. So that's a down side to it. Your seed costs are going to cost you more. Your chemical cost is going to be less. Now economically, if you have conventional beans and a weed problem, your yield is going to be down. So yield wise, we have tried different varieties of Roundup and one particular variety yielded quite well for us the last two years.

I guess we need to ask two questions. Will someone pay me more as a farmer for a non-GMO products? And the other important question is, has it ever been proven that GMO products are harmful to human health or the environment? And I believe the answer is no to both questions. I believe that the anti-GMO movement is based on fear and mis-information. I also believe that the end result will be a broader use of GMO's. For your information, some statistics and biotech plantings in Canada GMO crops in 2003, 89 per cent of the canola crop in Canada is herbicide resistant and 50 per cent of the Canadian corn and soybean crops in 2003 were of GMO varieties.

I would like to give some background information on biotechnology of GMO crops. The significant use of corn, soybeans and canola by Canadian farmers proves examples of the numerous markets

for the products of genetic technology and the significant benefit of farmers of adopting new products. The producer benefits as well as consumers will continue to grow as we move forward. Furthermore, the adoption of new technology will increasingly become a key means by which Canadian grains and oilseed farmers compete on a global market. If there were no benefits, you can be sure we would not be growing them.

The approach used by the federal government in improving plants and foods with novice traits, is generally considered to be the best in the world and has been endorsed by groups such as the World Health Organization for Economic Cooperation and Development. Before any new plants with novice traits are registered, licensed or used commercially, regulators must determine the potential effect of the product on human and or animal health and the potential environmental impact of the product.

The CFIA - Canadian Food Inspection Agency is the lead agency responsible for regulating plants with novice traits and is responsible for environmental assessments of agriculture products of biotechnology. Inspection and monitoring of that registered product continues to meet quality and safety standards after their approval. This inspection and monitoring includes imported products that are products of biotechnology. Health Canada is responsible for ensuring that all foods, including those derived from biotechnology are safe for human consumption prior to their entering into the Canadian food system. All new plant varieties that fit the definition of novice must be reviewed by Health Canada under the guidelines established by the novice foods regulatory established under the *Canadian Food and Drug Act*.

The Grain Growers of Canada which represents approximately 80,000 grains and oil seed producers is strongly supportive of Canada's regulatory process for the approval of biotech crops. The process must remain science driven with decisions based solely on health and environment risk assessments. Canada has one of the worlds most regulatory systems to determine the food, feed and environments safety of new plant varieties including products of modern biotechnology. In other words, Canada's produced food is among the safest in the world.

What will the future bring? I believe biotechnology is only beginning. The next generation of biotech products will be aimed at delivering specific benefits to consumers such as golden rice with increased levels of vitamin A to combat blindness in developing countries. Tomatoes with added vitamins that can help fight heart problems as well as cancer. These are only a few crops that are being developed that could have unlimited benefits for not only agriculture, but the environment and health with less use of pesticides.

Remember, good understanding of agriculture starts with good information. Thank you.

Wilbur MacDonald (PC) (Chair): Wayne.

Wayne Collins (PC): Thank you, Mr. Ling for your presentation. Just a couple of questions. I take it two-thirds of the soybeans you plant are conventional, right?

Alan Ling: That's right.

Wayne Collins (PC): Why do you continue to have this mix of two-thirds, one-third?

Alan Ling: I guess the main reason is the dollars involved in them. Now we started off a lot smaller than one-third and we would have been down probably - I don't know, the first year was probably only 10 per cent or maybe even less. We saw the benefits of it. So each year we keep going up. But let's say now - I mentioned that we trade a lot of land, so if we're going into a carrot ground for example, there was carrots in it in 2004, well we're probably going into that with soybeans in 2005. I generally consider that land pretty clean, pretty weed free. So we're quite safe in getting away with a conventional bean with very little weed problem.

Now if we're going into some land that had - let's say it had hay in it last year and we plowed it in the fall, then we would probably think that we were going to have a bit of a grass problem. So then we would probably be using Roundup Ready soybeans. If we had a field of - maybe there was barley in it and there was a bit of couch developed. One weed problem that we've developed in our area and I don't know where it comes from, is wild oats. So we have wild oats in a cereal field. We go in with Roundup Ready soybeans and that pretty well takes care of that problem.

Wayne Collins (PC): So even this small window you spoke about and we've heard it from several other farmers that area where you got to spray when a conventional crop is in. That still doesn't deter you from continuing with two-thirds conventional soybean.

Alan Ling: No, but I made some wild statements sometimes and one of them was maybe we should be going all Roundup Ready soybeans because like last year I don't think our chemical worked as good as I thought it should and we ended up with a lot of lambs quarters in the field which came late, particularly in the non-GMO soybeans.

Another reason for wanting to grow conventional beans is we grow an old standby variety called Barron and we can generally get it harvested in late September before the other beans would be ready to harvest. That's a big plus. The yield is a little less but they're in the bin safely when the other ones are still out in the field.

Wayne Collins (PC): Did I understand you to say you're a third or fifth generation farmer?

Alan Ling: Fifth.

Wayne Collins (PC): Fifth generation farmer. So your father, your grandfather, your great-grandfather farmed in, I guess, conventional ways of the day and they were taking their seed and storing it for the next year, so it had that sense of independence.

Alan Ling: Yes.

Wayne Collins (PC): And I'm wondering, given the increasing control of seeds in the hands of a few multi-national corporations, does that concern you as a fifth generation farmer?

Alan Ling: Yes it does. I still buy a lot of seed from my learned friend that spoke before me here. Like I don't believe that we'll ever get away from planting our own seed. We'll always be doing that as farmers around the world. I fail to see how the corporations will be able to control the seed to keep farmers from planting it eventually. Now I have a friend of mine in Ontario just outside of Ottawa that's growing Roundup Ready soybeans for sale and he's doing, I would say, pretty decent out of it. I think it's a pretty lucrative benefit that he's getting for growing the seed for, I'm not sure

which company it is. I think it's Top Line Seeds maybe, but I'm not sure.

Wayne Collins (PC): Thank you.

Wilbur MacDonald (PC) (Chair): Helen.

Helen MacDonald (PC): Yes. Mr. Ling, you mentioned that you grew flax.

Alan Ling: Yes.

Helen MacDonald (PC): Did you grow much flax and what did you grow it for? Was it more for the human or for feed for animals? And is there much flax grown on PEI? Because I hear it's a super food and it's one of these great things for humans.

Alan Ling: No, we didn't grow much. We had, I believe it was about 12 or 14 acres. I think all we did was we proved that we could successfully grow it and harvest it. We did not successfully market it although we did sell it. But in order to successfully market something, I believe you have to get an adequate price out of that product. As a farmer, I don't think I'm successfully marketing very much of what I produce today.

The flax was grown for a company in Ontario. The benefits of a lot of it was probably used up in transportation. We are going to grow some again next year. Again, a small acreage. I would like to think that someday we can develop a marketing system for it where we can market it for health food because it is obviously a great health food, all the reports I hear on it. I believe there is a potential in the future for it. So there will be - and as far as the acreage that went in last year on PEI, I think it was only around 400 and I don't think it was all harvested. Like it is a tough crop to harvest.

Helen MacDonald (PC): Is it? The other thing that you mentioned was the Roundup and when you put Roundup onto plants, you want to get it on the plant and not onto the soil.

Alan Ling: That's right.

Helen MacDonald (PC): So that it goes into the soil and kills the plant. Now if that touches the soil, if the Roundup touches soil, let's say you got a bare spot and it touches that, what happens to that soil? Can you grow anything in that?

Alan Ling: Oh yeah. It becomes inactive. Roundup only kills the root system of what is there. It only kills what's there and then it's inactive after that.

Helen MacDonald (PC): I see.

Andy Mooney (PC): I think as he explained it. It's not that you can't let it touch soil, it's just if it touches soil it's inactive. It just works on living products.

Alan Ling: Yeah. It's just like pouring water on the soil.

Helen MacDonald (PC): Right. Thank you.

Wilbur MacDonald (PC) (Chair): I'm going to ask you the same question I asked David, Alan. And I asked the question was, do you think if the province did say it's going to be a GMO free zone, could there be a living made by farmers with conventional soybeans, conventional - like David grew there, the new stuff we're talking about?

Alan Ling: Canola.

Wilbur MacDonald (PC) (Chair): Yeah, canola. I can never think of canola. Of course the problem is corn. I think the problem is corn. We can't - GMO corn is grown with conventional corn together as I understand it. Do you grow any corn?

Alan Ling: No we don't. We used to but we haven't for quite a number of years.

Wilbur MacDonald (PC) (Chair): It's my understanding that they grow conventional corn in the rows with the GMO corn, it's all sprayed together and that's how it becomes GMO because it's something to do with the cross pollination.

So how could we then survive without GMO's in the province? You think there is a possibility and is there a future for farmers if that happens?

Alan Ling: I like David, I question whether the province has the right to outlaw GMO crops or crops. I'll rephrase that. I don't think the province has the right to outlaw crops that are proven safe by a regulatory system that are allowed to be grown elsewhere in this country. I think that would be wrong. I think it would be a disadvantage to those farmers that want to grow it. We've only

talked about some of the benefits. There is certainly environmental benefits to growing it for erosion and stuff like that.

Now to go farther with that statement, I do believe that if somebody wants to be an organic farmer and grow organic soybeans and if I want to grow food grade soybeans, which I would like to do if we had a market for them here. I have to keep those food grade soybeans separate from my Roundup Ready soybeans. So I'm prepared to do that but I probably would not plant GMO soybeans in this field and right along side of it Roundup Ready soybeans. You would want a buffer zone between them.

Like I do believe there is room for organic farmers and conventional farmers to farm side by side. But we may have to have a conversation about what you're going to plant in your field beside each other. So I think it's certainly possible that we can live in harmony but to outlaw it would be wrong and it would certainly be adding hardship to those producers like myself that have chosen to use modern technology.

Wilbur MacDonald (PC) (Chair): What about zones? What if we were able to take a certain area of the province and say this is a zone where nothing can be grown except conventional seed? Could that possibly work?

Alan Ling: PEI is a pretty small province to try to do something like that. I don't know how you would do it because the farms are so big today and we travel so many miles to produce crops. It would be tricky.

Wilbur MacDonald (PC) (Chair): There is such a traveling back and forth. Like you know, one farmer may farm in one district but he really goes into three or four other districts and somebody from over there is coming in too.

So Wayne, you have a question.

Wayne Collins (PC): (Indistinct).

Wilbur MacDonald (PC) (Chair): Richard.

Richard Brown (L): I've been hearing this too. Do we have the legal right to do - and under what section I wonder, what Act would we be banning the growing of GMO crops? Mr. Chairman, if I may

recommend to the committee by a motion or whatever, that we have the legal department of government look at this because it's no good going another three or four months in these hearings, only to find out at the last day from the government lawyers saying, we cannot ban this. I hope that the Premier did his research before he put the resolution forward that this could be done.

So I'd like to see where the Premier did get his information that we can do this and what legal opinions and what act would be do it? Would be do our own act, a separate act banning it or would be do it under the *Crop Protection Act* or the *Crop Act* or would we do it under the *Environmental Act*? Where would he propose that this be done if it is going to be done?

Wilbur MacDonald (PC) (Chair): Want to add that to new business?

Richard Brown (L): Yeah, I guess I'll move a motion in new business that we have the legal department look at this. Because we've got what - 50 more presenters?

Wilbur MacDonald (PC) (Chair): Something like that.

Richard Brown (L): And I wouldn't want to find out at the 95th one or -

Wilbur MacDonald (PC) (Chair): Any other questions for Alan?

Wayne Collins (PC): That's the question I was going to ask, the exact same one that Richard posed as well. I think maybe it is time to get some resolution to that legal question. But at the same time, I wonder would it take as long for someone to come up with a legal opinion as it would for us to hear from the next 50 presenters. So it may be six and one half dozen of the other. I don't know.

Wilbur MacDonald (PC) (Chair): We have to say Alan, it has not come up before until I heard you on the radio on Monday. I don't believe it came up before today. So it's something new that has come up -

Richard Brown (L): We'd just assumed that the Premier would have had his homework done.

Wilbur MacDonald (PC) (Chair): May have

assumed some things. So Alan, I want to thank you again for coming. As I've said before, we all recognized that you're a good farmer along with David and you're both involved in growing grains and it's a real pleasure to hear from both of you. It gives us some thought.

Alan Ling: Thank you.

**Part III - Environmental Health Cooperative:
Mark MacDougall, Jeanne Maki**

Wilbur MacDonald (PC) (Chair): Our third presenter today is Mark MacDougall from the Environmental Health Cooperative. And I believe he has somebody with him.

Mark MacDougall: My assistant is. I want to apologize for any disturbance he may have made during any other presenters. Actually he's better behaved than some of you are actually, I think so if you want to get technical but we'll not do that. Just give me a second to get this straightened away here.

Wilbur MacDonald (PC) (Chair): Mark, it would be nice if you could introduce who is with.

Mark MacDougall: Sure. This is Jeanne Maki. She is a member of our Environmental Health Cooperative as well. Jeanne is a former owner of the Root Cellar health food store in Charlottetown. I'm a teacher at present and if you're wondering if I'm skipping out, I'm not. I'm taking advantage of the government's parental leave that we negotiated in our last contract. So I'm home for a few months. I'm not playing hooky, I am allowed to be out.

I want to say good afternoon and we appear for you this afternoon representing the PEI Environmental Health Cooperative. I'd like to thank you for allowing us the opportunity to present our views and concerns and we will be speaking in favor of a ban on GMO's on PEI today.

Our group, the PEI Environmental Health Cooperative is a volunteer organization concerned about the effects of contaminants, in both indoor and outdoor environments on human health. Many of our members have environmental illnesses or sensitivities or family members who do and it's with these people in mind that we appear before you today.

Often in situations such as this, the argument gets framed as environmental versus the farmers. We want to say off the top that we reject this characterization emphatically. This may be the way that some would like to see it portrayed but we want to assure you we are not anti-farmer. We believe that farmers have a vested interest in the environment themselves. We want farmers to be successful and we depend on them to provide us with our food. It is this particular technology that we are not in support of at this time with the information that's available.

For people with environmental illnesses, organic food is a medical necessity, not just a lifestyle choice. Their compromising insistence cannot handle conventionally grown produce. I understand this because my mother was in this situation for 15 years. Therefore, anything that may threaten the organic segment of agriculture is a very serious threat to these people. Contamination from GMO's is such a threat between plant contamination and feed contamination, it will be more difficult to avoid GMO's. We believe it is a wise decision to protect an agriculture sector with tremendous public acceptance and increasing demand which is the organic sector over our technology that is experimental and has trouble with public acceptance. Jeannie has done quit a bit of research so I'll supplement with some of this stuff.

The demand for organic food is increasing steadily throughout Canada and other countries. In the early days of the Root Cellar, the first health food store in Charlottetown, there weren't that many people who were concerned about finding food that was unprocessed, organically grown. Throughout the years as more health information becomes available through the media, the customers representing the whole spectrum of society go there. Doctors began sending their patients to the Root Cellar. They saw nutritious organic food as a cost effective way of having a healthy society and saving on expensive drugs and medical procedures down the road.

This is what the CFIA had to say about organic farming. With its large and very land based and cooler climate reducing problems from pest and disease, Canada is an ideal country for producing organic food. Canadian farmers support for the organic way of life is on the rise and organic sales are climbing as more and more organic food is being sold through mainstream grocery stores.

The organic industry in Canada is increasing at a rate of 15 per year for the past decade. I'm sure you've heard a lot of these statistics already but I'll go through them again.

In 2003, there were more than 3,317 certified organic producers in Canada and industry estimates are the value of the 2003 organic retail market range from 800 million to 1.3 billion. Projections for 2005 indicate organic retail sales growth may increase to 3.1 billion. Most Canadian organic products are exported to the European union in the United States and about 5 per cent of Canadian exports go to Japan. Organic grains, seeds and flowers represent Canada's largest export commodity.

Jeannie has been recently speaking with Pro Organics which is Canada's leading distributor of organic fresh foods in Canada. The lady there told us that they have run out of yellow potatoes which is the most popular seller and won't be able to get more until next fall. She said that if PEI were the first GMO-free province in Canada, you can be sure that organic distributors and retailers as well as consumers will be tripping over themselves to support the province in high quality organic produce that your farmers produce. That was her quote.

Another area of concern is the potential health effects that each GMO has on both human and animal health. The introduction of foreign DNA has caused concerns about the allergenicity of GMO's. There has been a severe lack of investigation in this area. With an absence of mandatory labeling, the public is still not able to know which foods contain GMO's, which would allow them the choice to avoid those foods. It would also provide the chance to associate reactions with the consumption of GMO's.

If you look at a couple of instances in England after they introduced GMO soybean, their allergy rate for soya went up 50 per cent right after the introduction of it and there was some problems when they first introduced Starling corn in the States, it was supposed to only be for animal feed and they did find it got into the taco bell shells down there and they did have some allergy problems there as well.

I'm not saying that the science is all completely done on this, but I'm saying that they haven't done it. I appreciate people's opinion on the fact that

Health Canada approves products but I think we have to be very careful when we look at that approval process and we have to look at - we need to see the independent studies and the data from those studies and we're not seeing those.

Health Canada has approved a number of things. If you want to go down the list over the years, you can start at the number of products that were approved by Health Canada. You want to go to thalidomide, you want to go to asbestos in our insulation, you want to go to drugs that have been recently pulled off like Adoril for ADHD ones, a couple of dozen kids had heart attacks and died, they took that off.

The approval process goes through and then they catch it later. They look at company data and then they try to find problems afterwards out in the society already. The safety thing should be before it gets out. I think there is more work to be done in that area. It's like having a ventilation system and you don't filter the air that comes in, you let it go in and circulate around. You re-circulate it and you filter it on the second time through. So it's not - we have major concerns about that information not being done yet.

If you look at the issue of public acceptance, we believe you'll find a tremendous amount of concern about GMO's. The vast majority of Canadians have been saying for years, they want a system of mandatory labeling. They are not happy and they can't make their own choices. Other countries have also been resistant to accepting imports of genetically modified organisms. There are no such restrictions on GMO products.

Researchers at the University of California did a study to find out what consumers want to know about their food and what influences their purchasing decisions. Food safety was number one. Environmental impacts including pesticides and genetic engineering were amongst the points mentioned.

I did manage to find - and I will submit this with our report the Leger Marketing Poll done in Canada in 2001 and it asked Canadians their opinions on GMO's. There was very high percentages that wanted labeling, over 90 per cent in Atlantic Canada. They did actually ask the question if people would be prepared to pay more. Would you be willing to pay more for products that did not contain GMO's? The highest percentage that said

yes, was Atlantic Canada with 61.9 per cent of the people responding saying, they would be willing to pay more for non-GMO products. I haven't been able to find more recent ones than 2001. I looked but I found another one that talked about labeling but not about that particular issue and I would encourage you to go and research that some more. But that is the only information I was able to find on that. So maybe that will be helpful.

Another concern for the farming community and I think this is a big one is who will control the technologies and who will benefit. Allowing large corporations to patent seeds and charge technology fees will leave - the possibility the farmers will be squeezed at the input end of production. We know they're already getting squeezed trying to sell it to an increasingly consolidated number of grocers or buyers and this would put potential for being squeezed at the input end as well.

Remember that the corporations will have an obligation to shareholders to maximize their returns. So if they're selling it as seed and they're selling it as a pesticide, if you're using less pesticide you're probably going to pay more for your seed. You're not going to put yourself out of business by putting a product that's going to bring you less profit. So if you're going to put a product on a market that's going to reduce your own pesticide sales, you're going to make it up somewhere, or else you're going to answer to some shareholders somewhere.

In the report, the farm crisis, bigger farms in the midst of competition and efficiency published by the Canadian Centre for Policy Alternatives. The author has used figures from Statistics Canada to trace agriculture gross revenues and realized net incomes from 1947 to 2002. This report clearly shows how the introduction of technology, prices went up, fertilizer companies raised their - introduction of technology, be it fertilizers, herbicides, tractors has increased revenues, farmers have not benefitted in the least. When farm prices went up, fertilizer companies raised their prices. We don't think that the companies will - we think they'll do the same thing with this technology.

One interesting report - finding this report were the results of a long term crop rotation study carried out by plant scientists at the University of Manitoba. I quote: "For 12 years, Entz and his

team have used test plots to compare costs and yields for conventional low input pesticide free and organic crop production systems. Their findings, farmers achieve their highest net returns per acre when they use no purchase crop inputs when they farm organically. Further, farmers earning superior returns even when they do not take advantage for the premium prices for their organic crops."

Two scientists from the Institute of Natural Resources at the University of New Zealand wrote a paper titled, *Soil Effects of Transgenic Agriculture, Biological Processes and Ecological Consequences*. One of the quotes they had was: "Contrary to declarations from supporters of GE technology, changes to the integrity of soil processes have been scientifically documented. Changes that point to risks in New Zealand soil should transgenic organisms be introduced knowingly or inadvertently into mainstream agriculture."

It's unfortunate that people who question GMO's based on what we know today are often seen as being anti-science or anti-progress. As I mentioned earlier, my mother had an environmental illness for 15 years and therefore she began growing much of her own food. I did some work in her very large garden with her especially in her last years as her health declined. It never ceased to amaze me how much scientific knowledge she used in growing her food, including crop rotations, pest management techniques, soil protections, companion plantings, et cetera. I am now working that garden myself and I'm learning new things every year. This to me is true science, based on observations made in nature.

For people that say the splicing of foreign gene into a seed and spraying that plant with a herbicide the plant is designed to resist is more scientific. I think that's misguided in my opinion.

In conclusion, we believe that there are many unanswered questions surrounding GMO's. Many people are unhappy that this technology has been allowed to enter the food chain without notifying the public and offering them a chance to choose other products. We see a market opportunity for PEI to sell its produce as GMO-free. We also think it is a wise move to protect the health of both humans and animals until a proper independent research has been done to prove its safety. We wish you luck in your deliberations.

Now we're not saying that forever, that this will never be viable, but we don't think at this point the information is there to say that this is a safe effective technology and we think that it's wrong to put in jeopardy other systems that we know are safe and effective. We can wait and let some of the people do the testing and then we can find out later if it's going to work or not. But we think it's not prudent to do it at this time.

Do you want to add anything Jeannie? If you have questions she'll probably have the answers because she did most of the background -

Wilbur MacDonald (PC) (Chair): Anyone with questions? No questions? I have a question.

Mark MacDougall: Sure.

Wilbur MacDonald (PC) (Chair): It seems to me one of the problems we have as a committee is this health issue. Now we've heard from the CFIA and other people and I don't know how we're going to solve that because we have such a diversion of opinion. Some say you know, it's okay and others say it's not. So how are we going to solve that problem? Time will solve it, that's for sure.

Mark MacDougall: I think one of the things and there is a lot smarter people than me that are going to talk to you about this, both from the farming side and from the science side of it. So I don't pretend to have all the answers. And again, I want to reiterate that I personally don't believe that farmers get a fair return. I think the efforts we'd better put into finding them a better return for the products they do grow now than to try and find a new technology for them. I think it's difficult when Canada as a government invests in biotechnology and is also the regulator of biotechnology. It's a difficult, maybe conflict there.

But I guess what I would encourage you to do is to see if you can get copies of data from the studies independently done. Not done by industry, but see if you can find studies that have been done by people who are not connected to the technology itself and look at that data and see if you can get access to it. Because from my understanding, you can't get access to it. I don't know. Maybe that is there.

Wilbur MacDonald (PC) (Chair): We have our research staff, we'll put them to work.

Mark MacDougall: Okay.

Jeanne Maki: Can I add something there?

Mark MacDougall: Yeah sure.

Jeanne Maki: Is there a microphone that this doesn't project my voice?

Wilbur MacDonald (PC) (Chair): No, it only records your voice.

Jeanne Maki: Does this one work?

Wilbur MacDonald (PC) (Chair): No, there is no mike involved.

Jeanne Maki: Okay, because I do have a problem with my voice, so I'll try to speak loud enough.

We have to look at what consumers are demanding and if consumers don't trust the science, they're looking to what few scientific reports from independent scientists are saying and there are a lot of questions out there. We don't trust Health Canada and we don't trust - there is a lot of - the industry is giving money to the government agencies, so there is a vested interest there. We have to look to independent reports.

One of the reports that this committee has gotten is from the food and safety agency and if you find out about that agency, it was started after the BSE crisis and people lost their faith in the British Government keeping them safe. So they were to establish this new agency. But again, there were people from the old government agencies that took the top place in this food and safety agency. So how can we trust what they're saying? So we have serious doubts and people are going to organic more and more because they don't know. I think a lot of people don't even realize that when they go to the supermarket, all the food that does contain GMO - there are GMO's in them. The more they learn, they'll be less wanting to.

So we don't want farmers here getting into a technology that people are going to say we don't want your food. We want to support the farmers. We think there should be more local marketing, not competing with Chinese farmers who get paid nothing to grow their food and then that gets sent to us and we're buying it in superstores. We have to get away from this, all the money going to the

corporations and they try to keep it down within reason so the consumers will buy it. But we want to see more local markets for the farmers. I mean if we're going to control greenhouse gases, how can we be sending food to the far ends of the earth when it can be grown in our backyards.

Wayne Collins (PC): May I ask you a quick question. When you said that there are - do you have any examples of the biotech industry giving money to government agencies in Canada?

Jeanne Maki: Well sure. I mean the government is actually giving money to the biotech agencies for research and development and vice versa and it's universities and government agencies are relying on corporations for - so that they can keep doing research.

Wayne Collins (PC): But universities have been accepting dollars for research and research shares and that in a wide array of industries for many, many years, right? So what's the difference between the biotech industry funding its share at an university as opposed to - now that's not what I'm talking about, that's a learning institution, right?

Jeanne Maki: Right.

Wayne Collins (PC): Receiving some research dollars or something. But you said that industry was giving money to government agencies.

Jeanne Maki: Right.

Wayne Collins (PC): And I'm wondering what are the examples of that actually happening?

Unidentified: The research station.

Wayne Collins (PC): The research station? The biotech industry is giving money to the Agricultural Research Station here on Prince Edward Island?

Unidentified: (Indistinct)

Wayne Collins (PC): Alright, that's what I'm asking.

Mark MacDougall: Yeah, I don't really know on that. I would like to make one more point I guess. I saw this on - I wish I had of known we were going to have this hearing a couple of years ago, but I did see on CFACT one time when they were

discussing this issue and debating the pros and cons and having much the same debate we're having here today actually I guess. But the one fellow at the end of the table who was a risk management specialist and his expertise was in that and they asked him what he thought and he said: I really don't know anything about the plants, science or anything like that.

But he said, I do know if I was going to introduce a new product, this is not the way I would have done it. I'm telling people that we don't have to label it. You don't have to know what it is. You don't have to know where it is. It's perfectly safe; we've got it all covered for you. He said, if you brought a new product on the market and told people that, people are willing to take risks, he said, but only if they are taking the risk themselves. They're not that willing for people to take a risk on their behalf. But they're willing to - if they're informed, they're willing to take risks on their own and be responsible for it.

Wilbur MacDonald (PC) (Chair): Wilfred.

Wilfred Arsenault (PC): Thank you for the presentation. Any good presentation as yours certainly requires time and energy. My question perhaps carries on the back of Wayne's question and it's as follows. What would you consider a legitimately funded independent study?

Mark MacDougall: What would I consider a legitimately funded independent study? I guess you know there is a few things that have to happen. The data has to be released to peer review for one thing. It can't be concealed data. You have release all the data. I think if you have researchers who are not tied in any way to the technology that's being tested, that would be important. Maybe those studies are there. I don't believe they are. I haven't seen one. We always hear about it's an approved product, it's gone through the approval process.

I think you have to have - you and your committee should have a good look at that process and see what that involves. If it involves collecting information and reading it and assessing it or does it involve actually taking the product and doing actual tests, independent of the people who are trying to put the product on the market. I would encourage you to do that. I don't know if I answered your question or not but I think transparency is one of the things that you would

need in the test and peer review would be important to make sure that it's a legitimate study.

Jeanne Maki: I've got a web page here that I'll leave with you and it's from the independent science panel. So if you can take a look at that you can see some independent studies that have been done.

Wilbur MacDonald (PC) (Chair): Okay.

Wayne Collins (PC): I suppose you could do that and Health Canada have yet to appear before us.

Mark MacDougall: Okay, that's good, that's great.

Wayne Collins (PC): It just gets back to the matter of trust you were talking about?

Mark MacDougall: Yeah, I don't distrust Health Canada, I don't think their meshes are small enough to catch things. I don't think they're looking at things closely enough. I think they're in a rush sometimes to get things out and then try to evaluate - once out there -

Wayne Collins (PC): I'm not defending them at all. All I'm saying is that we do have a lot of very serious questions for them when they do appear here.

Mark MacDougall: Thank you very much.

Wilbur MacDonald (PC) (Chair): Thank you very much. I think before we meet the next one, we're going to take a five-minute break. If you'd like to stand up and just stretch your legs. After awhile it gets a little tiresome.

[Five-Minute Break]

Wilbur MacDonald (PC) (Chair): It's a good job we have a mallet. We've lost Andy, have we? And Richard? Are we okay to keep going or wait for them?

Marian Johnston(Committee Clerk): (Indistinct) Yes, let's keep going. We have a quorum to keep going.

Part IV - Steven Belaire

Wilbur MacDonald (PC) (Chair): Okay, our next presenter is Steve Belaire and you're from a

private citizen. Okay there, Steve, coming right up. Could you give us just a little bit of your background, sir?

Steven Belaire: Okay.

Wilbur MacDonald (PC) (Chair): Sure, and then you can go ahead with your presentation.

Steven Belaire: Okay. I don't really have any accreditation or qualifications to speak here in any regards to science, just being a citizen of Prince Edward Island, and I figured I'd take advantage of the public hearings to have my voice be heard, I guess, and voice some of my concerns over genetically modified foods being grown on Prince Edward Island. (Indistinct) for that, I guess.

I do have to say I've lived all throughout Canada, but I've pretty much grown up here on the Island and lived here now for a few years again. I don't think I've ever really been as proud to be an Islander as I have been recently because they've been discussing a lot with a lot of people across the world, actually, regarding these public hearings. They're actually getting quite a bit of attention in Europe and throughout North America because of the fact that the idea of making such a large area like a province in Canada GM-free.

I'm not really a public speaker or a public researcher in any way, so I pretty much just figured I'd come up and talk until I was done talking and I don't think it'll probably take the entire half-hour or anything, okay?

Wilbur MacDonald (PC) (Chair): That's fine.

Steven Belaire: I guess one thing I'd like to start with is I've been coming to these hearings now for the last few weeks and there's one thing in particular I heard. I can't remember who he was representing or who he was here from. I don't believe it was the CFIA fellow, but he had mentioned about the monarch butterflies having to be basically immersed in a petri dish of BT corn pollen for it to be fatal to them.

I'd just like to point out, I guess, a study that was done at Cornell University last year - this was published in *Nature* magazine - where they took some, basically, caterpillars of monarch butterflies and they fed them milkweed leaves that were dusted with BT corn pollen and found that about

half of the larvae had died within about four days where none of the control group that ate milkweed without being dusted died and of those half of that survived - they eat far less food, grew quite a bit slower, and it pretty much retarded their growth. So there are unintended problems coming up, like non-target insects being hit by a lot of these BT crops.

There was another in - I think it was in that same report - a Swiss scientist had done some research on the BT corn also had the unintended consequence of killing green lace wings, which are known to eat a lot of insects that prey on crops like the European corn borer, for example.

I guess still in the health aspects of genetic engineering, I'd like to speak of one fellow named Arpad Pusztai, I believe is the correct pronunciation, who is a researcher for the Rowett Institute in Europe, I guess - England, I believe - and he was considered the leading researcher on genetically modified foods and how they effect humans. He was a nutritionist scientist.

What he did was he took a potato and crossed it with a lectin, which is a naturally-occurring insecticide in some of their plants, and basically fed them to some rats. This lectin itself, this pesticide that grows in other plants, he was able to feed up to 800 times the amount that he put in these potatoes to rats and it didn't have any ulterior harm to them, but the potatoes that he grew with this same chemical added in through genetic engineering had quite a bit of a detrimental effect on the rats.

It also had a lot less nutritional value than the regular potatoes. He found that they had, for example, 20 per cent less protein than the potatoes they took without genetically modifying them. The rats that he fed these potatoes with the lectin in suffered severe damage to their immune systems. Their white blood cells responded much more sluggishly than the control group that was fed the non-GM modified potatoes.

It left them more vulnerable to infection and disease. Some of the rats had smaller, less-developed brains, livers and testicles while others had enlarged tissues, including the pancreas and intestines, and some showed partial atrophy of the liver. Abnormal cell growths also accumulated in the stomach and the intestines of these rats, which could potentially develop into cancer. The entire

feeding study of these rats where he was feeding them the genetically modified foods and then checking the results, lasted for 10 days for him to find these results.

One of his conclusions - one of Arpad's conclusions - was if human beings developed problems similar to these rats, it could take years to appear and it would be highly unlikely that anyone would suspect that GM foods was the cause, which is what I see as one of the biggest problems with genetically engineered food is that it's not easily traceable to an illness.

You can have various different illnesses from these problems - if it's lowering your immune system, you can get a completely unrelated disease just because you have a lowered immune system, especially also if you have less-developed internal organs and all of the other problems that these rats had, and you can't really trace it back to genetically engineered food, in most cases, because genetically engineered food is not labeled. Someone's just buying food at the grocery store. There's no way of knowing they purchased a GM crop or not or that they've been eating that are not.

That's another problem I see with genetically engineering food, not only in eating it, but in the summer of 2003 in the Philippines, there was a large BT cornfield and 39 people had developed respiratory, intestinal and skin reactions while the corn was pollinating. Blood tests had verified that they had antibody reactions to the BT toxin that's in the corn.

Basically, their immune systems reacted badly to the corn, almost like an allergy, and this was just from having the corn grown near them and the pollen basically going through the air because all the pollen is going to be having this genetically modified DNA and people who breathe that in, you can get a cross-transference of the DNA into your system.

Potentially, there's a lot of reports saying: Yes, that does happen. A lot of reports saying: No, you don't. Generally, whether the report says that you do or don't depends who funds it, and I also see that as a big problem on the Island because we're a very windy province and we are already known to have a lot of problems with respiratory diseases in people on the Island. I guess there's a lot of people are suffering from asthma and other sorts

of illnesses relating to respiratory problems, so this could be just something else piled on top of that.

One of the biggest problems I have with genetically modified foods is the companies involved in producing the stuff: Monsanto, Dow, DuPont, all of these large chemical pesticide companies and that have a very horrendous history of horrible atrocities against people that are either their employees or people living in areas where they're working and I'd just like to go over, I guess, a few cases in point to show examples of that.

From a January 1, 2002 article in the *Washington Post* this is from, it came out that Monsanto had spent 40 years dumping millions of pounds of PCBs into the local lake and open landfills in this area where it had a plant and hid this fact from the public and the government - this is in Kentucky, I don't know the city - they were sued by the residents of this city in Kentucky for this illegal dumping and the jury had found that Monsanto's conduct was "so outrageous in character and extreme in degree as to go beyond all possible bounds of decency so as to be regarded as atrocious and utterly intolerable in a civilized society."

Monsanto's response to add to this allegation against them was that since they split off into different companies and have merged with different companies in the meantime, they are no longer the same corporation that was responsible for the illegal dumping, even though it was still under the Monsanto name when they did the 40 years of dumping.

The EPA alleges that - the Environmental Protection Agency in the States - alleges that Monsanto is potentially a responsible party for no fewer than 93 contaminated sites within the United States. This city in Kentucky would be one of them. Another example of that would be Times Beach in Missouri, where Monsanto dioxins and PCBs were found to be so bad that in 1982, the government shut down the city, evacuating the residents and quarantined the entire area.

There's a lot of examples of this: Union Carbide, which is pretty much the same chemical company as Dow Chemical, Union Carbide did a lot of the same type of work in chemicals that and Dow did eventually merge with them a while back.

In the 1930s, going back to, Union Carbide caused the death of - had over 2,000 of their workers in silica mines that had died, mostly from silicosis, a respiratory disease from breathing in the dust of the mines they were in. The company refused to supply the workers with safety precautions such as dust masks or wetting the work area to prevent it. It would have stopped a considerable amount of the dust that they had breathed in.

It came out during a House of Representatives sub-committee on labour. It was called the Hawks Tunnel Disaster and it came out during this House of Representatives committee that Union Carbide had proceeded to bury many of the bodies in mass graves, suppressed some medical information about the cause of relationships between inhaled silica dust and the illnesses, and paid scientists to downplay the danger to their workers.

Similarly, this is from the PBS radio network back in 1954. Union Carbide, again, had a plant where they worked with vinyl chloride. It's a chemical commonly used as an aerosol propellant, among other things, and a lot of their workers were dying from kidney failures, tumors and various things like that.

They were sued for conspiracy, actually, and it came out over several years of litigation that they had suppressed, literally, hundreds of thousands of pages of documents showing of their knowledge of the fact that vinyl chloride and similar toxic chemicals that they exposed their employees to caused cancer and deaths of many of their employees. They suppressed this information from their workers, the public and the government, and released false scientific reports and paid scientists - again, to release good PR for them.

In 1997, the *Associated Press* reported that a Louisiana jury found that Dow Chemicals was negligent in testing silicone breast implants, lied about the possible risks and plotted with the manufacturer of the product to hide potential health dangers.

In 2000, according to a New Zealand news source, a former top official for a Dow Chemicals factory admitted to bulldozing thousands of tonnes of unused chemicals such as Agent Orange and dioxin underneath the city of New Plymouth as an example, I guess, of the value they put on their employees.

In 2002, the *Houston Chronicle* ran a story about Dow Chemicals having something that determined the dead peasant life insurance, where Dow would take out life insurance on their employees - and without any knowledge of the employees - and then collect the returns whenever their employees died.

And I guess, of course, the granddaddy of them all would be at Bhopal, India, where a Union Carbide - Dow - chemical plant released some noxious gas into the atmosphere, which killed over 20,000 people and left, even up to today, which - this was in 1984, so it's been about 20 years - even today, there's up to 150,000 people - which is about the population of the Island - who are suffering horrible illnesses and diseases due to this accident.

Dow Carbide, at the time, and Dow since they've acquired them have fought tooth and nail against providing any sort of compensation for the survivors or even to clean up the mess which they've left abandoned to this day, containing hundreds of tonnes of dozens of deadly chemicals which occasionally leak when a tank rusts through or through several of the spontaneous fires which have started at the factory.

Dow never faced justice in India for the event, though it was forced to pay, I believe, through US courts, \$100 to \$500 in compensation to the survivors many years after the incident. A spokesman for Union Carbide at the time was quoted as saying \$100 is plenty good for an Indian, in response to activists trying to force Dow to clean up their mess. I believe this was in 2002.

The then-Dow CEO, Michael Parker, suggested that a portion of the compensation that was already paid to the Indian civilians that were afflicted be used to clean up Dow's mess. Even today, that plant is there and has all these chemicals in it, and at any time, could leak the exact same stuff that caused all of that death and destruction in the first place.

The reason I bring that up, I guess, is as an example to the low value that these companies seem to place on human life and the importance they put profits over the safety of people, which I felt I just had to talk about considering that we, at this very legislative hearing several weeks ago, there was a representative of, I believe it was the pesticide industry, that represented Monsanto and Dow and DuPont and many of these companies,

that spoke very highly of their stewardship for the earth and how much value they placed on the health of their employees.

So, I mean, if they would - that just seems like a bald-faced lie that they would talk about their high ideals in that way and be responsible for this stuff that they, for the most part, generally never clean up afterwards.

So if they get away with stuff like that, if they do stuff like that, then the genetically modified industry, which is mainly regulated by them and government officials in with the FDA, which have a lot of close economic ties to them. It doesn't seem very far-fetched that they would lie on those reports, either, and there's quite a bit of evidence to show that as well.

One example, I guess, I like to use on how unhealthy things get into the market even though we have all of these regulations in place is aspartame. Aspartame, the sweetener used in NutraSweet, is basically a neurotoxin. The chemical breaks down into wood alcohol when it reaches about 30 degrees Celsius, which is below your body's temperature, which your body metabolizes into formaldehyde when it gets into your bloodstream.

That was a known fact and it was still released into the market. Part of that reason likely was because the CEO at that time of Searle, the company that made this chemical and that was owned by Monsanto, was Donald Rumsfeld of Abu Ghraib fame.

He was also the president and CEO of Searle at the same time as he was serving on the Reagan administration with several hats, including as a member of the presidential general advisory committee and from looking into this, I see a lot of cross between FDA and EPA officials and that and people, chairmen and CEOs, and people on the boards of these very high companies. So it seems like they're not so much separate entities as part of the same group, really, so in essence, it seems that a lot of these large companies are self-regulating because they seem to have very little problem in getting legislation in place to do basically what they want.

Another example of that is Monsanto's bovine growth hormone, which was released on the market in the United States. The head of the FDA

at the time was, I believe, prior to that was an attorney for Monsanto and when she was in to allow bovine growth hormone on the market, she lowered the allowable amount of antibiotics in milk by a hundredfold without you doing any sort of human testing or that, just basically to get it to the levels where bovine growth hormone could be released on the market.

Fortunately, Canada didn't seem to be fooled by a lot of those false reports and Monsanto's bovine growth hormone is banned here, but there are a lot of things that seem to slip through.

One thing I guess I'd like to counter also is the industry claim of how clinical and exact and precise the science of inserting foreign genes into existing cells is. From the way they speak in that, it seems it sounds like it's something they have complete mastery of and have absolutely total knowledge of how it works and that, but in reality, they're very ignorant, as everyone else is because no one really knows a lot of the little stuff about how genetics works. They're almost basically like children working in a nuclear power plant thinking they understand what's going on.

As an example, I guess I'd like to give a brief explanation as to my limited understanding of the genetic engineering process. If you take a cell, a cell is a very small thing. Inside a cell, there's a nucleus. Inside there, it's made up of a strand of DNA.

DNA is basically called a double helix. It just means basically two strands that are wrapped around each other and the entire strand is bent and folded into all different ways and that, so much so that this is such a small thing if you were to untwist it and unwind it and that, it would stretch out to about 10 feet and this is inside every cell of every animal.

The different sections of the DNA strand can be broken up into genes, basically, and these different genes secrete certain proteins. It's the proteins that give your body that tell your body or use your cells how to work and what to do.

For example, a gene in the cells in your eye produce a protein that releases the pigment that gives your eye the colour, all different things like that. What they do for genetic engineering to insert to make a change is they'll take a gene from something like, for example, they've taken a gene

from salmon that gives it such a bright pigment and they'll put it into somewhere in the DNA strand of a petunia. This was an actual one that they did to give pretty colours to the petunia.

What they'll do is they'll take this little section of DNA strand - a gene from a petunia - and they'll cover little shards of gold and tungsten with it and they put this into what they actually call a gene gun and shoot it at hundreds of miles an hour into a petri dish full of petunia cells and some of those cells will be hit so hard with these shards that the gene from that salmon will be inserted at some random place inside the cell of the petunia and then now you have a gene from the salmon that gives it its red colour somewhere in that DNA strand of the petunia.

This isn't really very exact. I mean, they're throwing it anywhere, and the biggest problem with that is for quite a few years, scientists, geneticists, were under the impression to believe that every gene had a specific protein. Get one gene, it would do one protein, so it's a very simple matter to just take the gene that makes this protein of this animal and put it into this other DNA strands of this other animal to make it give that exact same protein.

Since the mapping of the human genome back in 2001, it's been found that's not the case. That's not correct. There are many genes that excrete various, more than one, protein - sometimes thousands - and there's also genes that have influence on other genes depending on where they are in the DNA strand and how many there are, so they're really mixing up just trial and error, shooting things in these genes into other DNA strands until they get an end result that they want. But there's no way that science can possibly, right now with today's technology, find out if there's any other genes that are being affected by that inserted gene or if there's any new proteins that are being pumped out that do all sorts of different stuff.

The genetic modification companies often claim that genetic modification is basically just an extension of natural science. They're just taking evolution to the next step, but really what they're doing is very, very different. It's not close to how things evolve in nature.

For example, they've taken a tomato and put an antifreeze gene from a fish in it, so that the tomato can survive a frost. It's very unlikely in nature - I'd

say almost impossible - that a fish would ever mate with a tomato to create this tomato that had this gene, but they were able to combine them and again with that, it's the problem that the tomato survives the frost, but there's literally thousands of other changes that could have happened to that tomato that they couldn't possibly predict.

I think there's a problem with our seeds are becoming contaminated with genetically modified crops. The Union of Concerned Scientists, a Washington-based advocacy group, said that their testing revealed that more than two-thirds of 36 conventional corn, soy and canola seed batches that they tested contain DNA from genetically engineered crops, but of course, they can only test for the ones - the genetic engineered changes, the genes that they could get a hold of. A lot of them are protected under trade secrets, so they couldn't possibly test for them, and there does seem to be a motivation for Monsanto and these companies to infect all of our crops with genetic engineering.

A few quotes from the industry is Lisa Dry, a biotechnology industry association representative stated that: Rather than pursue the unrealistic goal of trying to keep seeds completely free of genetic contaminants, we should work harder to get European and other nations to be more accepting of the technology.

Don Westfall, a bio-tech industry consultant who worked with Monsanto, stated in the *Toronto Star* in 2001: The hope of the industry is that over time, the market is so flooded with GMOs that there's nothing you can do about it. You just sort of surrender.

In 1999, Arthur Andersen Consulting had a meeting basically with Monsanto and they asked them about their future career path and they asked them to describe the ideal future, what they saw in 15 to 20 years.

Monsanto's executives replied that they described a world where 100 of commercial seeds are genetically engineered and patented and they seem to be growing the ability to do this because Monsanto, in particular, is buying up many, many seed companies.

Many of the largest seed companies in the world are being bought up by this corporation which has basically stated publicly that they want to have no unpatented seeds, which would be in their best

interest because if they have the patent to them, they have complete control over how a farmer plants them, how they use them and pretty much anything that they want to write into a contract.

I think the most telling information I have like I say is closed with - just some examples of farmers that have played around with genetically modified food that they were growing and they wanted to see basically how the animals that they had would react to them. A farmer in Illinois who is planting soybeans on his 50 acre for fields was visited annually by a flock of geese would eat many of the soybeans. One year the geese ate only from a specific part of his field. That as a result to their feasting, the beans were only ankle high. The reason, this year the farmer had tried a new genetically engineered soybean and you can see exactly where they were planted because the line went straight down the middle of his field with the natural beans on one side and his genetically engineered beans untouched by the geese on the other.

In 1998 a farmer named Howard Vlieger harvested both natural corn and BT variety on his farm in Iowa. Curious about how his cows would react to the pesticide producing Bt corn, he filled one side of his 16 foot trough with the Bt and dumped natural corn in the other side. Normally his cows would eat as much corn as was available never leaving left overs. But when he let 25 of them into the pen they all congregated on the side of the trough with the natural corn. When that was gone they nibbled a bit on the Bt but quickly changed their minds and walked away.

A couple of years later, Vlieger was in a room full of farmers to hear a presidential candidate Al Gore speak. Troubled by Gore's unquestioned acceptance of GM Foods, Vlieger asked Gore to support a recently introduced bill in congress requiring that GM Foods be labeled. Gore replied that scientists said that there was no difference between GM and non-GM Foods. Vlieger disagreed, described how his cows refused to eat the GM corn. Gore asked if any other farmers had noticed differences in the way the animals responded to the GM food in the room - about 12 to 15 hands went up. A couple of the quotes from that room were, if a field contained GM and non-GM maize, cattle would always eat non GM first.

A farmer in Nebraska, a neighbor had been growing Pioneer Bt corn, Pioneer was the brand

name of this corn. When the cattle were turned out onto the stalks, they just wouldn't eat them. There was a farmer in Montana - according to a farmer's magazine called Acres, in 1999, cattle broke through a fence and walked through a field of Roundup Ready corn to get to a non GM variety which they ate, leaving the GM corn untouched.

A biochemist with a background in agriculture, Bill Lashmett performed an experiment on a half dozen farms over two years in Iowa with cows and hogs letting two or three animals in at a time into a room with two troughs available. The cows sniffed the first trough filled with BT corn, withdrew and walked over to the next trough contained with natural corn which they ate. This result happened every time in every single test. Lashmett described a previous experiment he conducted in which he placed 23 separate vitamins and minerals each in their own bin out where cows could get at them. The cows would alternate their choice of bins in such a way that they received a balanced healthy diet. Their preference changed with the seasons and climate, demonstrating a natural inclination to follow the dictates of their bodies' needs.

Another example is, a retired farmer in Iowa who fed squirrels on his farm through the winter in the months by placing corn cobs in the feeders. One year he decided to see if they liked the BT corn over the natural stuff so he placed two feeders 20 feet apart, one with natural corn, the other with a BT variety. The animals would eat all the corn off the cob from the natural and wouldn't touch the BT corn. He'd refill that, the natural one, and they would continue to eat that again, not touching the BT corn. Whenever the farmer would move the natural corn feeder and just left the feeder with the BT variety of corn there, the squirrels went elsewhere for food. They wouldn't eat it. After ten days or so, he claims that there was maybe an inch nibble off one of the ears of corn and that was it. Once he put the natural feeder back up with the natural corn, they resumed eating it again.

Another actually good example is the flavor savor brand of tomatoes. It was the first genetically modified crop that was really produced. Back in 1992, this company made tomato which they put a gene in that would keep its flavor, or sorry, would prevent it from rotting for a longer period. So they could take the tomato off the vine while it was ripe and it wouldn't rot in transportation. Where as without that, they'd basically have to take the tomatoes off when they were a little under ripe and

they don't have the full flavor to them.

Whenever this was tested on rats, rats would refuse to eat the tomatoes. They wouldn't eat them at all. To conduct these tests, they eventually had to force feed the rats the flavor savor tomatoes with just force feeding tubes. Several developed stomach lesions, seven of the 40 rats died within two weeks and the tomato was later released by the FDA for human consumption, human use.

I think that kind of shows that a lot of these animals have the ability to see, to know what food is healthy for them, what things are edible and what things they need. A lot of farmers have put a lot of trust in their animals because they can kind of see that though generally what keeps them healthy and there just seems to be overwhelming evidence of animals refusing to eat. They eat the genetically modified foods which actually goes with that Pusztai fellow's research that showed that a lot of these genetically modified foods had lower nutrient values and not to mention any other problems that could result from any additional things that happen to crop up in the genetically engineered food.

I guess what I see as a good alternative to having genetically modified foods on the Island here is having a situation where genetically modified foods are banned, because without that really there is no way to protect the farmers from Monsanto and these types of companies. They're going around suing the farmers left and right and forcing them onto their contracts. But with the province free of genetically modified foods, I can see PEI becoming known as both for ecotourists and for people who want to eat organic or non genetically modified foods as a place where they can get that.

A problem with a lot of places now is Monsanto has already sued companies, for example, which have labeled their milk as not having artificial bovine growth hormone put into the cows. They're also trying to get legislation passed continuously so that you can't label genetically modified foods. But if PEI is a GMO-free zone and it's known as that, I think that in itself would really help the credibility for people trying to locate sources of GMO-free. I think we really are in a unique position here where we can have a GMO-free zone because we have the strait as a seven-mile buffer which pretty much the rest of Canada doesn't.

I don't see any benefit in us really growing GMO

food to be like everyone else in North America but that doesn't really give us any sort of edge where as alternatively we would be able to have these GMO-free plants year after year bearing any contamination which could be cleaned up where you really can't have that in a lot of other areas. Because having a fence or even a shrub or something like that as a buffer zone, doesn't help for genetically modified foods, sorry, genetically modified plants. The pollen can be transferred miles literally by the wind or insects or anything else that wants to get to them.

I guess with that I'll close. That's pretty much all I have to say.

Wilbur MacDonald (PC) (Chair): Any questions you might have? You certainly covered the topics.

Wayne Collins (PC): I would just like to ask you, do you agree with this statement: The potential risk to monarch butterfly populations from BT corn pollen is negligible.

Steven Belaire: I haven't seen enough research out in the field I guess to say for sure but from what I've seen of the studies showing that milkweed plants dusted with BT pollen kills the butterflies. I would disagree with that statement.

Wayne Collins (PC): That's the bottom line conclusion of six research studies published October 2001 in a publication called: Proceedings of the National Academy of Sciences. It's studies that were done in reaction to the May 1999 issue of Nature. Losey et al reported on a lab study of mortality among monarch butterfly larvae exposed to pollen from Bt corn. This generated all the controversy and resulted in several risk assessment studies of the issue involving 29 scientists of the US and Canada conducted over the next two years.

Apparently the USDA scientists were not at all surprised that Bt was toxic to butterflies but there was concern that the issue of the exposure of non target organisms like the butterflies might not have been adequately addressed when the first Bt corn variety received approval in 1995. Assessing these elements highlighted the major shortcomings of the Losey report.

First his lab used pollen from Bt event 176. That's the Bt corn variety with the highest expression of

Bt in the pollen. Losey's lab applied Bt 176 corn pollen to milkweed leaves which is the obligate food of monarch butterfly larvae and they applied it in fairly heavy concentrations in confinement. That is the only choice for the larvae was to eat the pollen contaminated milkweed leaves or starve. The risk assessment studies reveal that Bt event 176 corn represented only about 3 per cent of GM corn acreage which in turn was only about 20 per cent of total corn acreage. So Bt 176 was just over 0.5 per cent, half a percent of the total corn acreage and has since been removed from the market.

Pollen concentration on milkweed leaves in the field was generally lower than that used by Losey's lab and was not uniform on the leaves. That is the larvae could avoid the pollen by behavioural means. Pollen from other Bt corn varieties was not toxic to the test insects, that is Monarch and Swallowtail butterflies in concentrations twice those usually found on milkweed leaves in and adjacent to the Bt corn fields.

So the bottom line conclusion was the potential risk to monarch butterfly populations from Bt corn pollen is negligible, and that's 29 scientists in the United States and Canada.

Steven Belaire: Well it's hard again, like I said I haven't seen enough research out in the field to come up with a strong decision one way or another. From the research I've seen I would disagree with that initial statement. But it's very difficult to make any sort of, I guess, decisions on belief based on any single report.

Wayne Collins (PC): But you're coming to this committee and you're giving anecdotal evidence here of some farmer in Iowa or Utah, or Kentucky or Ohio and you're asking us to believe that.

Steven Belaire: Well okay, well again like I say, I've no accreditation or qualifications to be here and speak besides being an Islander. I'm not asking anyone to believe the things I say I guess. What I'm trying to do by being here is to throw enough information out there to cast doubts so that this legislation will research the issue thoroughly in its own wisdom and come up with a proper response that they think will protect both PEI farmers and the populace here.

Wayne Collins (PC): I appreciate that. Thank you.

Wilbur MacDonald (PC) (Chair): Any other questions from anyone? If not, Steve, you're going to leave your presentation with us are you?

Steven Belaire: I can, yes.

Wilbur MacDonald (PC) (Chair): Yeah, because it would be - the Clerk is not here right now but if you don't mind - Andy, would you pick it up and take it up. Thank you very much, Steve.

Part V - Gary Clausheide

Our next presenter is Gary Clausheide. Gary, could you give us a bit of a background where you're from.

Gary Clausheide: I'm an immigrant from the United States. The country that Canadians understandably love to hate.

Wilbur MacDonald (PC) (Chair): I don't know if that's true now.

Gary Clausheide: My family and I moved up here from Vermont 14 years ago and bought a small 65-acre run down farm which I proceeded to farm organically. She and I both have booths at the Farmers Market every Saturday.

Wilbur MacDonald (PC) (Chair): Is that how you make your living mostly from the Farmers Market?

Gary Clausheide: That's how I make somewhat of a living. It's my only source of income.

Wilbur MacDonald (PC) (Chair): It's your only source of income. You go ahead then, sir.

Gary Clausheide: In the 14 years that I've been living and farming in PEI, there has been a number of farm crisis. It is rare now to see three good years in a row and while some of these crisis are of biological origin, it is the reaction to the problem by our primary trade partner that has resulted in the bulk of the financial damage. Despite all this talk of free trade, the US plays economic hard ball closing the border at every excuse.

Between 1950 and 1990, this Island lost 80 per cent of its farmers. The remaining farmers bought up or leased their departing neighbors farmland. As a result, the total amount of acres farmed has remained pretty much the same. In the 14 years

that I have been here, the Island has lost over 25 per cent of the remaining farms. I can't help but wonder where this attrition will end. Does our government worry about it? Are they keeping track? Are they working on plans to stop this bleeding? Do they have an alternative vision or did they, our representatives, believe that this attrition of farmers is simply the natural workings of a private enterprise economy? Why the silence on this subject?

There are presently no more than 1500 farms left on the Island grossing over 20,000 annually. For most of the smaller farmers, including myself, farming has the feel of a child's game, musical chairs. In this adult game of musical farms, it is a foregone conclusion that there will be fewer farmers at the end of each year. As a result of this economic pressure, failure is a constant worry. What will happen if I fail? If I lose the farm, where will my family and I go? How will we make a living and what will happen to this farm?

My farm looks pretty much as it did in 1880. Nine, five-acre fields surrounded by hedge rows, a 16-acre woods sufficient to keep the farm in lumber and firewood and a house that is miraculously standing after 120 years of wood heat. Judging by what happened to other nearby farms that failed, if I fail at this endeavor and if the farm is bought by another farmer or corporate farm operation, first, all the trees will be cut down and sold and the house and barn and shop will be bulldozed and burned and the entire farm turned into one field.

That has happened countless times on this Island and apparently it could happen another 1000 times or so. Perhaps when the Island is down to 500 serious farms, our government might decide to intervene. The process that I've just described is known as centralization. Centralization is the process of ever larger units of production replacing smaller units of production. Big fish eating smaller fish and in turn getting eaten by still larger fish

This centralization of wealth and power is an interesting characteristic of an industrial private enterprise economy. Have you ever heard of a large enterprise being beaten off by a smaller enterprise? If were to diagram the food industry, it would have the shape of an hour glass with consumers at the top and small family farms at the bottom. Above the bottom rung of a small family farms would be layers of ever larger farm operations. A narrow throat at the middle would lie

the corporate processors, retailers, brokers and input manufacturers and suppliers.

It is this corporate sector that was the first to be centralized and now they dominate agriculture. I don't expect them to replace farmers as that is the most difficult and least profitable sector of the food industry. It is easier for them just to exploit farmers. In this marketing relationship between farmers and corporate middle men, farmers have about as much leverage as a Walmart employee, zilch.

The paramount economic problem with agriculture is the same as with every other sector of our capitalistic economy. What makes it seem different is just that it is the last sector of our economy to be centralized and there was a very large number of people to displace. For all this praise of competition there is one characteristic of it that Adam Smith overlooked when he wrote up his theory on economics: The paradox of competition, is that in the long run it tends to eliminate itself. A private enterprise system inevitably moves toward oligarch, oligopoly, monopoly and plutocracy, ruled by the wealthy.

Genetic modification to me is simply the latest technological fix served up by the petrochemical industry. It adds more weight to the load that the chemical dependency forces farmers to carry. Meanwhile, Monsanto would like farmers to think of them as their friend and savior. If Monsanto's intentions are not clear to you, look first at their previous technological fix, BST.

This bovine growth hormone which supposedly increases the cow's milk production was a solution to a problem that did not exist. There was already a problem with milk overproduction in the US. The introduction of this drug would only intensify the competition between farmers and put out of business a significant number of smaller farmers. If that example doesn't clarify it, how about Monsanto's purchase of the company that held the patent on the terminator technology.

In May of 1998, Monsanto purchased an American company named Delta and Pineland Company for \$1.76 billion. Two months earlier, that company had patented genetic engineering technology dubbed the terminator. This technology was developed in partnership with the US Department of Agriculture. The USDA is still cold when they're with Monsanto. With this technology, Monsanto

could sell seeds that could not reproduce, thus making farmers totally depending on them. Imagine what could happen if the pollen from these plants was not containable. Farmer and writer, Wendell Barry, describes the corporation as a large pile of money with only one purpose, to become a larger pile of money. He has also said that farmers first started getting in trouble when they began to want their neighbors' land more than they wanted their neighbors.

I've attended several of these hearings and would like to respond to one presentation in particular, that of Ms. Dewar, the lobbyist from the biotech industry. One of her major points was that studies have shown that GM crops and non GM crops could coexist without fear of contamination. But it's obviously untrue because the organic canola industry in the prairies has already been destroyed through contamination and a group of Saskatchewan organic farmers are taking Monsanto to court. She also claimed that organic standards allow a 5 per cent contamination level. That isn't true. No one caught her on it and it shows the need for a representative of the organic growers to sit on this committee to ask harder questions of your pro GM presenters.

When I first moved to this Island I was surprised to find a very strong antagonism to our organic agriculture on the part of many chemical farmers. They didn't really understand it but they knew they didn't like it. Presently, biological agriculture is more generally accepted. At least it does not denigrate publically to the extent that it used to - there has still yet to be a healthy dialogue between the practitioners of these two systems. In a contribution to that possibility, I would like very distinctly to describe the difference between the two system.

Biological farmers believe that their soil is alive. A healthy soil is alive with the incredible numbers of microscopic bacteria and fungi and non-microscopic organisms up to and including earthworms. There is a whole universe in healthy soil that our agriculture experts know relatively little about. We do know; however, that the bacteria, rhizobia lives on the roots of legumes and can take nitrogen out of the atmosphere and fixate it in the soil. We know that mycorrhizal fungi help make phosphorus available. We know that other bacteria and fungi help to aggregate soil particles and create humus. Nature has its own ways of creating fertility. Biological farmers know they can assist

this process by feeding these organisms and by not killing them with toxic sprays and excessive tillage.

Chemical agriculture, on the other hand, is modeled on hydroponics. Scientists have known for several centuries that plants could be grown without soil, using a liquid solution of nutrients. It wasn't until Germany developed an industrial process for manufacturing synthetic nitrogen, that chemical agriculture became feasible. The system of agriculture allowed farmers to treat their soil like dirt, that is, they no longer had to use their soil as soil. They would no longer rely on the forces of nature to regenerate fertility. They just needed a medium to hold their plants up while they fertilized them with inputs from the chemical industry. Thus began their chemical dependency. Herbicides and insecticides and fungicides were soon added. Modern chemical agriculture is indeed a very clever and sophisticated process for converting petroleum and natural gas and cheap raw materials for the corporate processes to convert into expensive products of dubious nutritional value.

On the positive side, the chemical interest certainly increased yields and if measured by yields per acre or per farmer, modern agriculture looks very good. But if it is measured by the amount of energy that goes into it compared to the amount of food energy that comes out at the end, a ratio of about ten to one, it isn't that impressive. This inefficiency can only last as long as the supply of cheap oil holds out. In regard to high yields, overproduction has been one of farmers most serious problems causing low prices and narrow profit margins.

If measured in terms of farm income, it may work very well for a small percentage of large farms, many of them corporate. But for most farmers, it is producing more stress than money. The period that I referred to about 1950 to the present are the same years that Island farmers adopted chemical inputs as their standard practice. It has come to be called conventional agriculture, but I prefer to call it chemical agriculture. Just as I prefer to call the alternative biological agriculture as it is referred to in Quebec and other parts of the world rather than organic. The meaning of the words conventional and organic are somewhat confusing.

I would like to remind you that up until the chemical industry inserted itself into agriculture

after World War II, biological agriculture was standard practice, that is conventional.

So what really do we have to show for how a century of chemical farming, certainly not a happy prosperous and secure farm population. Increasingly the children of farmers are choosing not to take over the operation and are often encouraged by their parents to find a better paying, more secure way to make a living, perhaps by becoming an agricultural expert.

The state of health of our populace and our environment is also not very impressive. The supposed laws of economics do not factor in these considerations nor do they put any negative value on the thousands of farm families forced out of farming and off the land. At a recent hearing, a presenter was asked if he thought Island potatoes were unhealthy. He was hesitant to reply knowing that it would offend some of you personally. But a growing number of people do suspect that toxic spray has been put on food crops do not simply break down and magically disappear, but rather leave residues in the food, in the groundwater, in the surface water, in the air we breathe and thus in our bodies. There would not be an organic movement otherwise.

A growing number of people suspect there are problems with our food supply, in part, because no one is testing for the long term health effects of pesticides and genetically modified crops. World scientists either work directly for corporations or for universities or government agencies doing the research under corporate funding. Most of the agricultural research done on the Island is done under a policy of "matching funds." Who but the chemical industry has such funds? Certainly not the organic growers. Whoever pays the fiddler calls the tune. With genetically modified crops, not only is there no testing on long terms health effects on humans, but it is impossible to do so as long as there is no labeling.

I cannot imagine that anyone on this committee would try to justify this lack of labeling. People have a right to know what they are eating. They have a right to choose. Judging by the questions being asked at these hearings, it seems the pivotal issue is whether Island farmers could make more money growing GM crops or to the marketing advantage of a GMO-free Island.

I would recommend that it not be decided on this

basis. It might effect a few hundred farmers at this time. The overriding issue is that of human and environmental health and we are in the dark here. Not that long ago, a few of us knew that sick cows were being rendered and fed back to cows. Another clever corporate idea. Now Canadian farmers are paying dearly for it. Regarding mad cow disease and the border issue, Canadian beef farmers would like this decided on "the science". American beef farmers want the border kept closed because they are making more money.

Regarding GMOs, do you want to decide on the basis of making money or on the science? With GMOs, the science is not complete, not with regards to human and environmental health. You have heard from a number of scientists on this GMO issue and I'm trying to avoid repetition. There are a few points that haven't been made.

Up until modern times, seed were considered a common wealth. For thousands of years, farmers improved crops by selecting and planting their best seeds. Through bio-technology, Monsanto can now add one gene to a potato that has over 30,000 genes and claim a patent on the whole bundle.

That makes as much sense as Columbus planting the flag on a North American beach and claiming the whole continent for his motherland. This continent already had 10 million inhabitants.

Another issue that was raised in the discussion on Percy Schmeiser was Monsanto's rights to enter farmers' fields to sample and test his crops for GMOs. Apparently, Monsanto claims the right to enter and take samples from any farmer's field that they suspect that might contain genetically modified plants.

It's hard to imagine the Monsanto crop police patrolling the Island at this time, but isn't it the point of this hearing, to be looking down the road several years? It's difficult to imagine in today's political and economic climate that a government would have the courage to stand up to and restrict a major transnational corporation. I have seen little, if any, evidence of it.

On the contrary, governments now seem to be bending over backwards to assist this trend towards giantism through tax cuts, privatization of Crown corporations and even subsidization, like the \$5 billion subsidy that the Ontario government

just gave to General Motors.

Wilbur MacDonald (PC) (Chair): Okay, thank you very much, sir. Any questions from the committee?

Helen MacDonald (PC): I have one, Wilbur.

Wilbur MacDonald (PC) (Chair): Helen?

Helen MacDonald (PC): You grow organic food. Is that true?

Gary Clausheide: It's true.

Helen MacDonald (PC): Do you use any pesticides at all on your food?

Gary Clausheide: I use Bt on the brassica family. It's a biological pesticide.

Helen MacDonald (PC): You grow potatoes?

Gary Clausheide: I do.

Helen MacDonald (PC): What do you use for blight?

Gary Clausheide: Potatoes, to me, is just one of many vegetables. I don't specialize in them. I grow less than half an acre. My strategy for blight is to grow an early variety and if in late July, I start seeing signs of it, I clear all my tops. I haven't had any problem with it then going down into the tuber.

Helen MacDonald (PC): Thank you.

Wilbur MacDonald (PC) (Chair): Wayne?

Wayne Collins (PC): Mr. Clausheide, congratulations on a passionate and eloquent presentation. I was glued to every word you said, sir. (Applause) I want to ask you, though. I mean, in a few moments, we're likely going to be debating a motion here that is going to ask government to provide us a legal opinion on whether or not it would be even legally feasible for a province to ban GMOs. Do you have any advice for us before we begin that?

Gary Clausheide: I would try to encourage you to look at the bigger picture. I mean, the farmers on this Island are in trouble and nobody seems to have any remedy. I mean, with each new technology the corporations come up with, they

just become more chemically dependent. I think basically the whole structure is unsound. I think our whole economic system, actually, is not sustainable.

In particular, our agriculture - which not even organic growers are getting very serious about discussing the question of sustainability. Our agriculture is very dependent on petroleum and if you're familiar with a lot of the news that's coming out currently, world oil extraction is either at their peak or within about a decade of being at their peak. That doesn't mean we're about to run out of oil. It means that we've hit the halfway point, after which demand keeps going up and supply starts dropping. At that point, the price of oil will start jumping.

Wayne Collins (PC): Mr. Clausheide, you know, as does everyone at this table and everyone in this room, that the farmgate receipts last year across Canada were down at record lows here on Prince Edward Island as well, and I know you've referenced in your presentation our concern of many of us, mine included, about the economic fallout of a decision, one way or the other, on whether or not to ban GMOs.

And I do hear your point here today about human and environmental health ought to be the overriding number one concern. But if you will indulge me a little bit here and in your opinion, if tomorrow or down the road, this committee decided to recommend to the Legislature that we have a ban on GMOs in this province, what would be the likely scenario? The question being - then what do you perceive happening out there?

Gary Clausheide: Well, I think a lot of presenters have told you that it wouldn't have a large economic impact. There's a whole lot more involved in agriculture than GMOs, and to tell you the truth, I'm starting to resent the amount of time it's taking up. I would like to see us get on to some of these other issues that are more relevant as to farmers making a living farming.

Wayne Collins (PC): All right. Thank you very much.

Wilbur MacDonald (PC) (Chair): Richard?

Richard Brown (L): We've heard a lot of discussion that organic farmers, it's not a

sustainable way, but you seem to be sustaining yourself.

Gary Clausheide: Financially?

Richard Brown (L): On farming.

Gary Clausheide: Not really. I live in a 120-year-old house that's falling down and my income allows me to pay bills, you know, sort of week-by-week expenses, but no way would it afford me to build a house.

Richard Brown (L): So would you say by going GMO-free or going organic, we're going to increase the demand for organic?

Gary Clausheide: By banning GMOs, you would allow Island farmers to break into the European and Japanese markets. I don't know down the road what the market's going to do. No one does. I don't know if this issue's going to catch on with the consumers or not.

Richard Brown (L): Okay. Thank you.

Wilbur MacDonald (PC) (Chair): Thank you very much. We'd like to have your presentation, if you don't mind to the clerk, okay. That brings us to new business and adjournment. I wonder if you want to go into camera or do you want to talk? It doesn't matter to me. Sometimes you like to talk in camera a little easier.

Unidentified: Okay.

Wilbur MacDonald (PC) (Chair): Okay? You said okay?

Unidentified: Yes.

Wilbur MacDonald (PC) (Chair): So we have a motion. Richard, do you want to re-introduce your motion?

Richard Brown (L): Well, Mr. Chairman, we've heard a number of times that maybe banning GMOs province-wide would be challenged in the courts or under what area would the proposal be done before voting on the final report. I'd like to know from the legal people in the department of justice, where would this law be done? Under the *Environmental Protection Act* or would it be done under the *Crop Act* or would it be an act by itself?

So I would move a motion, Mr. Chairman, that we request the province to review the legal standings on banning GMOs provincially and also if a ban is possible, under what legislation would it be done?

Wilbur MacDonald (PC) (Chair): Wilfred?

Wilfred Arsenault (PC): Okay, I have no problem with the motion that's been put on the floor and I'll second that motion if required. I think it's very straightforward. We have legal opinion in the Department of Agriculture, I believe.

Wilbur MacDonald (PC) (Chair): Do we have a legal opinion in the department? No, we have to go to the Attorney General's office.

Marian Johnston(Committee Clerk): We can seek a legal opinion.

Wilbur MacDonald (PC) (Chair): Yeah, we can seek a legal opinion.

Wilfred Arsenault (PC): We have nothing to lose by getting this information and I think it would be useful to the committee as well.

Wilbur MacDonald (PC) (Chair): Wayne?

Wayne Collins (PC): Yes, Mr. Chair. I agree with the motion. I think it's very - I don't know if it's very - I don't know if it needs to be quite as lengthy as that. Basically, does Prince Edward Island have the right to ban GMOs and if so, under what legislation?

Richard Brown (L): Yeah.

Wayne Collins (PC): Essentially. Right, Richard?

Richard Brown (L): Yeah.

Wayne Collins (PC): But I think in the passage of this motion, it must be very clearly understood that this doesn't - should not be construed by either side of this debate as the committee favouring one side or the other.

This is strictly something that I feel the committee would need some clarification on as we proceed further down. We heard today from two reputable Island farmers, representatives of organizations like the PEI Grains and Proteins Council and the Grain Growers of Canada, raise this element of doubt and I think it's something that ought to be

addressed.

I'm hopeful that it's something that could be done utilizing the current legal expertise now in the employ of the Province of Prince Edward Island. I certainly don't want to see us, this committee, requesting government to spend a lot of money to go for an outside legal opinion or something.

I would hope that somewhere within the government that the Attorney General's department, presumably, a couple of legal heads can get together on this and solve it in the morning. I'm expecting a speedy reply back here.

I hope that this doesn't, in any way, impede the work of this committee. I don't think we should stop what we're doing, but we should certainly urge, in the passage of this motion, a speedy reply from those legal experts.

Wilbur MacDonald (PC) (Chair): Okay, go ahead.

Wilfred Arsenault (PC): One quick comment. I think it's very important for us, as members of the Legislative Assembly, that the democratic process continue until we write the report and we have to remain independent and to be fair to the presenters that we do not get biased and we remain independent and encourage as much input as possible from the public with the nature of these hearings, so -

Wilbur MacDonald (PC) (Chair): Okay. I would think what we'd do is go directly to the Attorney General's department, okay?

Richard Brown (L): Under your name.

Wilbur MacDonald (PC) (Chair): We'll follow that up, okay?

Richard Brown (L): Under the chairman's name.

Marian Johnston(Committee Clerk): You forgot to call the question, Mr. Chairman.

Wilbur MacDonald (PC) (Chair): Oh, yes. I'm sorry I didn't call the question, did I? All those in favour of the motion, signify by saying aye.

Committee Members: Aye!

Wilbur MacDonald (PC) (Chair): Contrary nay.

Motion carried. The next meeting is -

Marian Johnston(Committee Clerk): March 16 is what we had planned.

Wilbur MacDonald (PC) (Chair): March 16 at 1:00 o'clock? And how many presenters?

Marian Johnston(Committee Clerk): Well, (Indistinct)

Wilbur MacDonald (PC) (Chair): Okay. Richard, the Clerk would like a few minutes in camera, if you don't mind.

Marian Johnston(Committee Clerk): We'll just take a short recess and then come back and I'll just talk about that meeting.

Wilbur MacDonald (PC) (Chair): Okay. Can we just take a few minutes?

Marian Johnston(Committee Clerk): We're just going to stay for a couple of minutes. I want to talk about the next meeting, just privately.

(Unidentified Speaker): (Indistinct)

Marian Johnston(Committee Clerk): Yes.

Wilbur MacDonald (PC) (Chair): A short in-camera meeting, okay?