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HOUSE COMMITTEE PROCEEDINGS**

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

Thursday, October 13, 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
Jim Bagnall replacing Wilfred Arsenault
Hon. Philip Brown replacing Andy Mooney
Cletus Dunn replacing Eva Rodgerson a.m.
Dr. David McKenna replacing Eva Rodgerson p.m.
Ron MacKinley
Hon. Robert Ghiz replacing Richard Brown

ABSENT:

Fred McCardle

GUESTS:

Part I - PEI Federation of Labour: Leo Cheverie
Part II - Pamela Courtenay-Hall
Part III - Deborah Kelly-Hawkes, Blair Ross
Part IV - PEI Organic Producers' Association: Raymond Loo
Part V - Island New Democrats: James Rodd
Part VI - Earth Circle Group: Bethany Doyle, CSM
Part VII - David and Edith Ling

STAFF:

Marian Johnston, Clerk of Committees
Bob MacGregor

Committee on Agriculture, Forestry & Environment
Thursday, October 13, 2005
9:00 a.m.

Part I - Federation of Labour: Leo Cheverie

Wilbur MacDonald (PC) (Chair): We'll call our meeting to order and our first presenter today is Leo Cheverie who is no stranger to anyone of us. So welcome, Leo, and we'll hear your presentation and if there's any questions after, we'll ask you, okay?

Leo Cheverie: Sure, and I know we have 15 minutes so I'll just try to cover sort of the broad outline of things. I'm here representing the Federation of Labour and basically, what I have done is that we work with the Canadian Labour Congress, it's out of the research department and they've certainly been working on this issue as a national issue and certainly, their environment department have actually has a position paper on it so my presentation is based on that particularly, and I may make some local references as well.

The other thing about this is that the Federation of Labour does represent 10,000 people across Canada and we certainly have workers who also work in the agricultural sector and food sector as well so and basically, we see this as a matter of a strong public address particularly as a public health issue and basically, some of the concerns I guess, that seem to be there is in terms of GMOs and they're talking about more broadly deals with the broad framework of which you're looking at, and part of that it deals with health and safety and some long-term effects.

Some of these may have some concerns regarding what's happening on a national level in terms of the regulation because we do refer a lot to Health Canada and CFIA and those things. Certainly labour has had a long concern in terms of what Canada's structure is in terms of what it does to protect our food supply compared to what other countries are doing. We have some graver concerns because of the way that our food system as been set up. So I think that's the framework of which we need to look at this more broadly.

In terms of—we look at this in terms of what's happening with GMOs is in fact such as in terms of GMOs and in terms of government regulation, we know that what's happening is really

happening—it's closed, shrouded secrecy so government really relies more on corporate data for its assessment of food safety, of GMOs to a large degree and corporate data is owned and controlled by corporations. So it's considered to be private property and the public, I guess don't like to access it which is quite different than what's happening in other jurisdictions.

So secrecy cloaks every stage of development, testing, reporting and assessment of GMO foods. So right now in Canada, there's no mandatory labeling of GMO foods. There's no testing for the long-term effects of GMO foods and there's really a lack of long-term studies. So governments also has failed to implement the Royal Society's recommendations on GMOs and the UK actually have established a corporate liability for GMO contamination and potential catastrophic environmental damage that's been done in the UK. It hasn't been done in Canada and there's a total lack of information about procedures and standards used by Health Canada to assess the food safety of GMOs and it's also impossible to find out whether Health Canada conducts independent testing and the health effects of GMOs and somewhat concern exists around potential environmental damage from the release of GMO plants and animals. And I'll say this that the concerns we have around Health Canada in this area concerns Health Canada in a number of other areas as well. It could be in terms of drug testing. There's been some concerns around in terms of what's been happening in Canada. There's concerns around what's happening in terms of Health Canada in a number of a number of other areas so this is part of our concern.

In terms of the dangers of GMO foods, we know that there are some real concerns right now about the growth and consumption of GMO foods could lead to a change in the traditional makeup of food, the increased presence of toxic substances in foods including the creation of new toxic substances and increase of antibiotic resistance in disease organisms, the creation of new allergens, increased exposure to existing allergens and therefore, increased sensitivity to the population at

large. Exposure to hidden allergens and tandem with increased difficulty in tracing the cause of the allergen, allergic reactions and incalculable damage to the natural ecosystems.

So we really want to have mandatory labelling of GMO foods - 94 per cent of Canadians want this. They want transparency in all of government actions relating to foods so I'm really happy to have this committee here that is looking at this issue. We need clear, specific rules for the testing and safety assessment of GMO foods, safety and testing of GMO foods by independent scientists and strict application of the precautionary principle as a guiding standard in all matters relating to health and safety. We've gotten away from that in Canada in terms of the precautionary principle.

We also know as well, I know I only have a few minutes, so I'm going ahead - what's happening in Canada in terms of the *Food and Drugs Act*, we used to have a *Food and Drugs Act* that was adopted federally in 1953. It was administered and enforced by Health Canada till 1997 and what the Canadian Food Inspection Agency - they have to, they oversee the inspection and enforcement of 11 federal acts including only one of which deals with the safety of human food. And continuing its turn with the CFIA is the agency is more strongly oriented towards food production than it is to food safety.

So some of the information you're getting in terms of what safety awareness issue is the fact that the CFIA have more, have a much broader mandate than just looking at the health of foods in Canada and we also know that the federal government is actually looking at changing even our framework for looking at foods in terms of moving towards even a different act so we want to make sure that this doesn't—we know that this is our concern. We realize the current kind of close relation between government departments and the pharmaceutical and agri-business industries suggest that the pro CHPA legislation would lead too far in the direction of the combination of the industry.

We also know that the Canadian Health Protection Act would pay lip service to the precautionary principle which would undermine it by establishing risk management and risk assessment. So in looking at GMO foods, we've looked at the framework of which people are saying—it's safe right now. The *Food and Drugs Act* is an

imperfect piece of legislation but is better than the new proposed Canada Health Protection Act and actually, we need to really enforce the *Food and Drugs Act* to kind of make it stronger. So that's, if you were hearing about things saying about the safety of things, we have to look at in what direction the federal government is going in.

We know that basically, we really need to setting standards respecting the food needs to be an open and transparent process with full public access information except where trade secrets are involved and that isn't the case right now and food inspection should be placed firmly in the hands of Health Canada with funding for it because having one agency tied very closely to business as opposed to food safety and we also need is to mandatory label genetically modified foods.

Also we need to—so those are the sort of things that we really want to and we see this in Health Canada in terms of pharmaceuticals and regulations there because there's been lots of concerns around the federal government's role in all these matters and certainly with the promotion of GMOs, it means that we're stepping away from the precautionary principle and moving towards risk assessment. But we really want to say that in terms of doing things, look at GMOs in terms of precautionary principle, the precautionary principle takes the position that it's better safe than sorry. It states that a lack of scientific certainty should not prevent regulators from taking measures to safeguard public health and the environment.

In other words, when outcomes are uncertain, the precautionary principle advises decision makers to err on the side of provincial risk and this is where the voice of common sense - it certainly is part of international agreements, part of the bio-safety protocol. It's standard against the drive for quick profits whatever the costs. Government's might pay lip service to this but they're actually not backing it with actions.

Right now is in terms of biology and in terms of GMOs or in terms of anything else, is something - it's hard to put the genie back in the bottle. Therefore, it's very, very important to be very cautious because maybe you can't turn the clock back. So basically, scientific developments are out patiently building of regulators to oversee, investigate and interpret new data. Biotechnology and transnationals are (indistinct) profits from new

technological developments.

So the long-term effects of these such things such as GMOs have not been investigated as thoroughly as you would like even though they could have potential that have—and in many areas, scientific data has been gathered. It's been gathered by corporations like agri-business and pharmaceuticals are pushing government regulators to allow the release and sale of new products before they've been thoroughly tested. The thorough testing of new products is a long and costly business so obviously it means increased prices and delays but the precautionary principle advises that thorough testing needs to be done. Risk assessment, price jumped the gun by saying—they're probably small when measured against likely businesses, against likely benefits.

So I think we really need to err on the side of the precautionary principle as opposed to this new model of risk assessment and that's one of the concerns we have because ultimately, the long-term effects of these things are going to be in our system for a very long time and if you're looking at whether we should institute this on PEI or not, I'm saying is if you're relying on federal government information or whatever is that they tend to be compromising the precautionary principle and going towards risk assessment. I think that's too large a risk.

In Britain, we have an esteemed panel, the Royal Society making lots of recommendations in terms of what—and I know other people may have presented that already—saying be very cautious about this and certainly, that's been the model that's been happening in Europe and some other countries and certainly we need to adopt that same sort of model here.

We also agreed that we need healthy food in healthy environment. We need healthy communities and part of that is food that is good to eat is also food that's good for the environment and for the rural communities in which it's produced. So we agree that healthy foods really—we should be really looking at what all the healthy food have more healthy food here and obviously, the human health and environmental consequences of release of GMOs of deliberately mutated food crops and terminator genes in the environment and the food chain—even the food chain are unknown.

We also know that certain and other problems with large operations, we need to look at what type of agriculture we want and certainly one that actually we know that Agribusiness, the model of Agribusiness is actually one that's eliminated jobs and it's actually the monoculture approach means that the people are paying a lot more for fertilizers and weed killers and herbicides and fungicides. But that whole model of doing that is it actually means they are also looking at control of the food supply and it's very clear in terms of Agribusiness and where it's happening is that they are the ones that are really pushing this to happen at a much faster rate and in terms of the precautionary principle it says—slow down, we need to have long-term studies.

We need to make sure that there's no long-term problems of releasing this into the environment and we also want to make sure that citizens have food security which means that they should have food that is safe; make sure that the available food is affordable; there's adequate food in terms of nutritional quality; that the food is acceptable in terms of meeting the needs of people themselves; and we also need to know nutritional labeling and we also make sure that it's done with the standard of life of workers in the food industry so farm workers have been traditionally underpaid and right now, we're even moving farm workers from outside the country coming here to work in which little attention is paid to their rights or to their safety.

So in terms of, we need really to look at what kind of food supply we want and the quality of the work and life of people working in that industry. We also need to have it sustainable so we need to have a sustainable food production as well. We also know that certain corporations whether it be ConAgra or corporate Agribusiness, they are driven by profits. They're not really concerned with food nutrition, purity or wholesomeness except when it may have an impact on their sales. So Agribusiness in terms of pushing sort of models of agriculture are certain ones that in the long run may be problematic, and Canadians have actually, extremely limited rights to know what substances their food contains right now. They don't even have a right to know what pesticide residues remain in their foods or whether or not hormones are actually present in meat or dairy foods or whether or not the food contain genetically modified organisms.

So we really need to look, to make sure that testing and testing procedures are in place and we really need to make sure that what's happening in Europe, for example, we need to make sure there's long-term testing of GMOs, the government's failure to implement the Royal Society's recommendations of GMOs. We got to make sure that that's in place. We got to make sure the Canadian Food Inspection system is actually there to meet the needs of people and that the food supply base that we have in Canada is really healthy. Basically, the agency CFIA was established in 1997 with a split mandate, to make sure that the mandate that it's falling out, I know provinces have a constitutional right to enact laws relating to matters of local nature including laws concerning food which is being produced and sold and we know that certain provinces like Quebec, they actually take extent regulations which actually rival those of the federal government, whereas in Alberta has little legislation.

So I'm happy that this province is taking legislative authority to look at this issue because it does have responsibility in this area and what we're trying to do is have a long-term impact and making sure we're not making decisions now or make decisions now which are actually going to make us stronger as a province, making sure that food is healthy, safe, adequate for Canadians and that basically, that the long-term issues surrounding this issue are resolved first by making sure that long-term studies and other things are in place to make sure that the food is healthy and it certainly is the terms we hear echoed in Europe. They have different frameworks in terms of inspection but in Canada right now in terms of the role of the federal government has been and we certainly have seen it in pharmaceuticals where there has been a lot of problems in terms of some pharmaceutical regulation and overseeing in that area is the fact is that we may hearing certain things in terms of food health and safety. But the long-term studies haven't been done and certainly what we see in terms of the Royal Society study and other things haven't been implemented to the same degree.

So I think we need—it's almost like we really need to adopt the precautionary principle and precautionary principle means as well as that it's going to have a long-term impact on our markets, on already existing farmers in an already existing way of producing food already if in fact, they're allowing us in. We know that really the

beneficiaries of this are the same kind of corporations that are pushing things like the (Indistinct). They want control of the food supply to a much greater degree and we also know in terms of even the ones where they're saying is that the seed technologies are trying to control the seed technology is in fact is that you couldn't even reuse the seed that you produce and there's actually corporations are developing ones that they're making seeds being produced or ones that wouldn't be able to produce food for the next generation like the terminator seed.

So those are the kind of forces that are behind this. We just need to slow down. We need to look at those long-term things and that is sort of in keeping with the health and safety of Canadians in making sure that they have a healthy food supply and we're saying—slow down. We need to take a longer look at this and the real forces behind this are interested in profits and less in people. That's basically it.

Wilbur MacDonald (PC) (Chair): Very good, Leo, a question from Cletus.

Cletus Dunn (PC): I want to thank you, Leo, that was a lesson.

Leo Cheverie: That was a short one.

Cletus Dunn (PC): That was an hour and a half presentation in 15 minutes. I guess I want to go back to your talking there's a shift took place between versus production versus safety. Also you talked about precautionary versus risk assessment. Did that impact a change in legislation at the time or just a sort of a . . . ?

Leo Cheverie: My thought is they did change the *Food and Drugs Act* rather than becoming exclusively under Health Canada got moved to this other agency which had responsibility not only for that but about ten other pieces of legislation. So basically, they had not the sole responsibility of just of food safety but it also means they also had responsibility towards actually the promotion of food as well. There's also a focus away from having independent inspectors to having the industry regulate itself.

Certainly, we saw that in the terms of the downloading of costs to farmers in PEI because they've had to pay for inspections and things at the

same time. So part of that model was that industry had a much greater role in providing the data information as part of the whole food system which includes regulations of GMOs and things. So it meant that the federal government is moving, is downloading its responsibility in protecting the food supply and having industry buy in by them being part of the partners in terms of them doing part of that work. But that does somewhat compromise what that could mean, the same as in terms of what the outcomes could be.

Cletus Dunn (PC): Just a secondary question, Mr. Chair, is that you talked about provincial legislation in the area of healthy foods and production. Where do you see provincial legislation in regards to this issue?

Leo Cheverie: I think right now if you want to adopt the precautionary principle is one that I see that we don't have an absolute (Indistinct) except to say that if you're making this, if the growth of this is happening and if you're relying heavily on industry appropriations saying this is safe. We must push ahead. I think their interests are one that you would profit primarily. There's also control globally about who's controlling the food supply and that's happening globally in terms of PESA movements across the world which labours work with, you work with, is that there seems to be increasing concentration of power in fewer and fewer hands at the expense of farmers and workers across the world and we have to see this movement as part of that.

So if in fact, there's been a great drive to say—we need to introduce these things right away—we're saying is that, look we need to have these long-term studies. We need to make sure the precautionary principle is upheld. We need to make sure that the testing for long-term effects are there and we have to look at what's happening in other countries because obviously we do know as well is that even in terms of our markets, we do know that the European markets are saying something in terms of they're being much more cautious and much more aware that these could have some long-term, damaging impacts and certainly, that even people who are producing food on PEI recognize that in terms of what their own buying patterns have been in certain crops.

So this thing is, and once they're out there more broadly, does that change the whole nature of

agriculture to a greater degree so that you can't guarantee things are GMO-free if that's what people want to buy. It's a really, really difficult one to do. But we certainly know that's the direction where globally things have gone. There are fewer, fewer heads and more and more power and Canadian government regulation have given industry more power and less power to Health Canada.

Wilbur MacDonald (PC) (Chair): Philip.

Honourable Philip Brown (PC): Leo, as people that are, have been presentations, it's difficult because there's a real polarization in the debate. You mistrust the corporations. The corporations mistrust the people that present a social agenda. You talk about the precautionary principle which is its theory, if we adhered completely to the precautionary principle, Columbus would have stayed in Europe and never would have ventured across because he didn't know what was there. He only anticipated what might be.

So you used in your language, you said if risk assessment is invalid but precautionary principle is a valid method of evaluation and people could argue that they're relatively the same, that you have to assess risk, but on that, and I would ask the presenter from the other point of view. If the public is not going to do the research and we've seen the public moving away from research, when does the private or business, at what point can they legitimately return their—expect to receive some return on their investment in research if they at some point have to—they can never commercialize their venture. The nature of it is they must if they're going to invest in research. I mean that's the nature of it and that's important that at some point, their research reaps some benefit for those that invest. How do we do that if it's not all publicly funded?

Leo Cheverie: Can I draw an analogy maybe because I think it's when you look at the very largest player in agriculture globally, we do know that certainly farmers and farm workers are ones that certainly haven't been beneficiaries even in terms of making crops more efficient because actually even getting the cost of a reasonable cost return has been real problematic in the numbers or commodities.

So the globalization of food hasn't entirely worked

for the benefit of producers. It hasn't entirely worked for the benefit of consumers but has certainly worked for the benefit of large corporations. But I'll use the analogy in terms of drug companies because the same arguments are being made in terms of saying—well what drug companies need to invest in research and development in order to ensure that we're going to be investing in medicines that are needed for the world. The same arguments are made and some of the same players are in both areas. What we find now in the pharmaceutical industry, there are some real, real problems because what we have is really a strong promotional campaign for people in the west to consume more and more drugs and without the huge amount of drug interactions, problematic, problems in terms of because a lot more elderly people will need a whole variety of different drugs, there's a lot of other problems in terms of that as a solution for their health problems as opposed to other things which are less dependent on drugs.

At the same time as well, those companies are investing in research and say—we need some returns. What's that meant is we in Canada, we've allowed the brand name people basically, to have longer and longer patents to make this money back but the vast majority of money that they're spending are actually spending on promotion of drugs as opposed to research and development on one hand. And at the very same time, they're only producing drugs for things that they figure that are commodities that are marketable. So that in fact, they'll produce, spend lots of money on maybe a sleep remedy. Meanwhile, there's other problems in the world where hundreds of thousands of people are dying without access to the drugs that they need and they're not putting even money into research and development in that area because it's not a profitable venture for them.

So the model of corporate model of being involved in food production or things like this, food same as health should be even and corporations need to be restrained more than they are and their argument that they need to make more profit or need to make more money back is—they're only putting money and investment in areas where they think they can, they actually want more control of the food supply than they do and I think food is a human right and everyone should have access to it and the whole model in terms of whatever we're producing now is even in Third World Countries,

they're looking at rather than having them produce food for their own needs, you're having this corporate model of food being sent. They're actually diverting from their own needs and producing food for themselves to feed themselves is towards producing food for export because they need to pay back which corporations are actually pushing so that they'll in fact producing things for export, getting a little bit of money back and they're actually more dependent on the global food supply which isn't serving their interests.

So what I'm saying is the system right now is set up not to serve people's interests but it's just to serve and make profits but it's done at the expense of people and the expense of healthy food being produced.

Wilbur MacDonald (PC) (Chair): Wayne.

Wayne Collins (PC): Yes, Leo, thanks for your presentation. I want to come back to this report of the Royal Society of Canada, the expert panel and you've made reference to that in your presentation and I believe you made reference in saying that their recommendations were being ignored or something to that effect. But I think it's worthy to point out that that expert panel was struck or convened at the request of three federal departments, the Department of Health among them.

So I mean this was the federal government calling upon a blue ribbon panel of Canadian scientists so let's understand that from the start. But we heard testimony from a representative of Health Canada at our last meeting and maybe we'll have the opportunity to discuss further with that person a little more in-depth to help Canada's position when it comes to implementing recommendations of this Royal Society report. But they told us at that time that they had developed an action plan to respond to the expert panel's recommendations and part of that plan was to enhance the regulatory processes and make it more transparent and apparently, one of the things they've done is to regularly publish progress reports and they did so in the month of July on their website. Have you seen that progress report?

Leo Cheverie: I haven't seen the latest progress report but I'll just state this. Even though 94 per cent of Canadians said they wanted labeling of GMO's, the program hasn't even enacted that one

yet. That has a vast overwhelming support of the majority of Canadians so I'm hoping they're taking some steps but I'm cautious about what they're suggesting.

Wayne Collins (PC): They claim and it was said at this table that they are responding—this is a direct quote—“to the recommendations made by the Royal Society in a timely and effective manner”. And they did go on to point out under the issue of transparency that Health Canada was working on pilot projects to increase transparency and participation of the public and external experts in decision making in the areas of novel foods. One of the things they've done is they're posting notices on the Health Canada and CFIA websites when they receive new submissions. It describes the products, summarizes the scientific information provided for regulatory review to Health Canada and the CFIA and for the first time, the public has 60 days to provide input on the scientific matters that are relevant. And I believe their first notice was posted two years ago, October 31st, 2003. They've had five more notices published since then.

Now this is under the heading of transparency and the second pilot project focuses on an external expert participation in their Food Rulings Committee. So the committee is apparently the decision-making forum for all of this management decisions related to foods including the novel foods. They do have a roster of experts that they've established and participation from one of those roster members to the food rulings deliberations was expected this fall. So we are seeing this outside expert as part of the decision-making process here and regarding the recommendation from the Royal Society about having better horizontal governments, that is getting various departments of the federal government working more closely with one another.

We were assured that that is also happening and we will explore that further with Health Canada. But I do believe that it's important that when we hear this Royal Society of Canada expert panel recommendations being referred to and we have done so. We have heard that continually from many presenters that it's really worthy to understand that the panel was struck by the federal government and that Health Canada claims they are dealing with it in a timely and

effective manner. We look forward to having them back at the table to explore a little further those topics of health.

Leo Cheverie: I'll make one further suggestion because if Health Canada is doing this, they are obviously getting criticism from a number of quarters and not only from this area of food but from a whole range of other areas where they've—in terms of whether it be a blood supply, or whether it be pharmaceuticals, or whether it be a whole range of other areas where they're covered.

I would also suggest rather than just taking their word for it, that you may want to contact other groups like the Canadian Health Coalition who've done, do a lot of work monitoring what's happening in Health Canada and making sure they're followup because their concern regarding the main principle that the precautionary principle isn't being followed in a number of areas is still very much concern of theirs and in actual fact, they were moving towards, there's risk assessment. So I think to be really fair, I think you really needed to talk to some other critics of what's happening within Health Canada and their model as well. I'm just suggesting that as well as taking their word for it, I would also talk to people there as well.

Wayne Collins (PC): There are a number of issues that have come before this panel that I'm beginning to try to synthesize it in some way and one of them is the overall heading of health, the health of GM foods and I'm wrestling with the question of whether or not this committee should in some way assume the mandate of making determinations on whether or not GM foods are healthy. I mean as a group of provincial legislators without any scientific resources independently to rely upon of our own that we could commission to work which would be totally out of the realm of possibility, I would think. Is it really in your opinion, do you really believe that the mandate of this committee should be to in some way declare whether or not in its opinion genetically modified organisms in food are safe or unsafe?

Leo Cheverie: In terms of looking at this issue, I think it's very clear that if you are looking at this issue, you need to look at it in the context of where things are in the regulatory framework is nationally as well as internationally. I think the context is very important.

I also think that obviously if there's some very real concerns expressed, both the long-term impacts of things and very real text with the regulatory framework in which the move towards risk assessment and away from the cautionary principle, then I think that means that down the road, there's going to be some very real issues with GMOs or other things if in fact that work isn't being done and certainly, that should be part of your deliberations not to make the judgments that maybe other levels of government should be making but also be very cognizant that people are aware that other levels of government may or may not be doing the job correctly and not in fact, putting the correct information out there including the fact that the federal government hasn't even made—even though 94 per cent of Canadians want mandatory labeling of GMO foods and they haven't even done that.

You have to wonder to what degree are they actually acting on protecting the interest of Canadians. That should be part of the context of which any decision should be made because obviously, people are going to say—he said, they said—sort of thing. But in actual fact, there's some very real concerns regarding the regulatory framework in Canada and what can fall through it?

Wayne Collins (PC): So what you're saying in essence is that this committee should, I guess, satisfy itself one way or the other on whether or not the regulatory process that is employed by Health Canada and CFIA is valid or not.

Leo Cheverie: And I would also be, if you want to look at the long-term health and safety of establishing a food supply that meets the needs of all Canadians and is accessible and affordable and nutritious, et cetera, then obviously the model is one—it needs to take into concerns all these issues and certainly, we've seen failures. In drug supply, we've seen failures. In health and the blood services, we've seen a lot of failures in the federal level in terms of the regulatory framework and the approach they've adopted in a whole range of other areas.

Certainly, if there's a failure in this area as well, then it's going to have a really negative impact on agriculture or on this move towards, move in this Agribusiness area so it would have a disastrous impact on industry if in fact, there's another failure in this area. So that's why the precautionary

principle is very, very important.

Wayne Collins (PC): But in all other walks of life, in all other walks of industrial endeavours, the risk assessment factor is always something that is played out. I mean it is a risk to transport toxic chemicals by rail through the Rockies. We've witnessed that this summer. There's a risk involved here. There's a risk when you step aboard an airplane. There's an assessment that's involved there in terms of what is likely to happen or not happen. I mean, in every other walk of life, we have this risk assessment model or level. Why should GMOs be any different?

Leo Cheverie: Well I think . . .

Wayne Collins (PC): Because I will say it to this point, I mean it's been documented that more people in the last year have died from airplane accidents and more fish have been killed by toxic spills of railway cars than has anybody been injured to our knowledge, consuming GMO products.

Leo Cheverie: I mean I'll just use the same analogy with drug companies in terms of, because there is actually a health, there is a parliamentary committee a number of years ago that was looking at the dangers of buying organic or natural remedies over the counter. And this whole commons committee went across the country and these drug companies were railing against the fact that these things should be sold and they should be more regulated so they should become a pharmaceutical. They had to meet a higher test and they were complaining about the number of people that were dying because of taking these natural remedies over the counter and the number of people dying were like 15, 20 people. It wasn't a very large number. But they were actually railing against this. This parliamentary committee went across the country and these drug companies, one after the other starting railing against that basically, natural remedies should be used in this manner and they should be regulated and they should meet a higher test so they would have greater control over them.

At the very same time, more recently what's come out in terms of the use of pharmaceutical drugs in Canada is the number of Canadians dying because of legal prescriptions and drug interactions is in the thousands. It's actually the

fourth or fifth leading cause of death. It was very, very high. Meanwhile these drug companies with their evidence against these natural products was very strong and the very same time, there was some very real loophole or problems with how Health Canada dealt with legal drug interactions, making sure drugs were approved for use and how many things were being prescribed because that was one of the leading causes of death.

So what I'm saying is, if people—there seems to be some concerns raised by corporations in their own interests including ignoring other things that are certainly in the public interest and in that area, Health Canada needs to have a much stronger role in terms of making sure the precautionary principle is being followed in a whole range of things. We've seen that in our blood supply. We've seen it in drugs and pharmaceuticals. We've seen it in a whole range of areas. What I'm saying is the model of industry versus safety is one we have to take very seriously and I still think that despite what Health Canada is saying it's doing, the move from one model of where the health was being regulated by Health Canada particularly and now it's being done in a model which includes the industry as a whole is one that does not make for probably the best science and one that maybe makes us concerned in the long-term health and safety of Canadians and I say that's the crux.

Wilbur MacDonald (PC) (Chair): I'm going to have to interrupt both of you. I know it's very interesting, both of you, your conversation. I will say, Leo, that we are bringing Health Canada back and we have a lot more questions to ask Health Canada and I appreciate your—today you certainly covered a wide area in a very short time. Thank you for coming but we do have a tight schedule.

Leo Cheverie: I agree and I basically suggest as well as bringing Health Canada back or bringing back other groups like the Canadian Health Coalition who obviously have been observing what's happening in Health Canada as well is also very important.

Wilbur MacDonald (PC) (Chair): Okay, thank you very much. The next presenter is Pamela Courteney-Hall and Pamela, you can come up front.

Part II - Pamela Courteney-Hall

Pamela Courteney-Hall: Thank you for making this spot for me in your agenda regarding genetically modified organism to make presentations for many months now. My name is Pamela Courteney-Hall and I'm a professor at the University of Prince Edward Island. I'm in the Department of Philosophy and also in the Environmental Studies program. My training is in Ethics and in Philosophy of Science.

However, I taught for 11 years as a professor at the University of British Columbia in the faculty of Education because I think that education is tremendously important to the success of a democratic society. I took a position at the university here almost four years ago. I was very interested to hear Mr. Brown's discussion of polarization because as you can see from the title, that's the focus of my concern in this debate. I've called my presentation "Polar Myths".

Wilbur MacDonald (PC) (Chair): Just a little louder, please. No, the microphones have nothing to do, the microphones are just to record. Okay, so we have no microphones in the room, if you don't mind.

Pamela Courteney-Hall: Okay, I've called it "Polar Myths". Polar because there is such extreme opposition of viewpoints across the spectrum. You might also suspect there's some connection on the Polar Foods controversy and indeed I think a case could be made for that. I'll talk about that at the end.

Also I used the word "myth" not in the rich sense where a myth is a story. It's based on some deep truth about the human condition and yet it's not entirely true, the story that's being told. We needed something that we want to believe and it conveys to us various principles that are very important. I'm not using myth in that very rich sense. I'm using it in the more pedestrian sense of myth as being something that we might want to believe in some cases but something that is not grounded in real events, not grounded in real evidence and yet it is talked about all the time. And I think this goes on, on both sides of the debate and so hopefully had talking about a few of the myths that I've noticed and I'm sure you have as well.

The question is and the question that you've just been asking is what do you do in the face of this

polarization? I just want to make a reply to a comment that Mr. Collins made regarding the Royal Society report. I think it's very good that Health Canada is taking some steps to improve the regulatory situation. But having citizen input is only a small step towards transparency in process in transparency and deliberations. It's not a transparent process yet. So we need to go a long way. I'll talk about that when I get to probably the first myth on the list. I don't know why it doesn't want to show the full screen.

Wilbur MacDonald (PC) (Chair): We can follow it on your sheet.

Pamela Courteney-Hall: Okay, this is interesting that it's cutting off the right-hand side. Indeed I had a hard time structuring the right-hand side entirely under the framework of Polar myths. In some cases, it seemed to degenerate more into polar arguments rather than myths, more on the right-hand side than the left but anyway—the first one concerns food safety and we hear from GM proponents that GM foods have been proven safe for human consumption. We hear from GM critics that GM foods are hazardous to human health. If you take a look at the handout that I've distributed, here's some of the discussion that goes on. It claims that there's no evidence of harm. It claims that GM organisms are all substantially equivalent to proteins that are already in our diet.

On the other side, the GM critics talk about different studies that have been made to suggest that GM foods can harm the immune system and to suggest that there can be problems with a digestive system, particularly food allergies. The overall concern around food safety is that our research system and our regulatory system around food safety is defective. They're both defective. There are funding imbalances, namely there's a tremendous amount of funding available for anyone wanting to promote genetically modified foods. There's not a lot of funding for anyone who wants to test their safety. Until that funding and balance is corrected, we don't have a good research system in place.

The concept of substantial equivalence begs critical questions. A very big concern people have is with the change in percentage of certain proteins that generic modification can introduce into diets. Another very big concern is with the exact nature of the protein that's being introduced and claims of

substantial equivalence, that's a policy move. It's not a move in nutritional science. So it masks some of the key food safety issues.

The third problem is has been well noted by Leo Cheverie. The data is provided by the biotech corporations. There's clearly a problem of conflict of interest involved in that. We have a regulatory system that is based on conflict of interest. No Member of Parliament would be allowed to be in that sort of situation and yet biotech corporations are allowed to be. Why does that happen? Because of funding cutbacks. Health Canada doesn't have the money to provide for independent testing of foods. So this is all about funding problems.

Furthermore, for any crops that aren't given a free ride on the substantial equivalence criterium. Any tests that the corporation does concerning the safety of the food, the results of those tests do not have to be made public and are not made public. You see, that's a whole raft of concerns about food safety.

The next Polar myth on both sides of this issue, there are claims made that GM crops aid soil conservation. There are claims on the opposition side that GM crops are harmful to soil and to understand where this fits in, in the whole debate, we must have to look at—this is an overview of the kinds of GM crops—and notice herbicide-resistant crops are just one of five or more different kinds of GM crops.

So when we're talking about, go back down, we have herbicide-resistant crops, pesticide-generating crops, environmentally-modified crops, that is crops that have been modified to be resistant to drought, resistant to heat and so on. We have pharmaceuticals, that's crops that have been modified to produce vaccines and so on at cheap rates. Finally, crops modified for consumer or marketing preferences, we might include nutraceuticals there that is crops that have been modified to have enhanced nutritional profiles. So there's all those different kinds of GM crops. So this particular myth about soil degradation on soil improvement, this focuses primarily on herbicide-resistant crops. It's to some extent pesticide-generating crops.

The claim made by Monsanto and many other corporations is that their herbicide-resistant crops

allow for no till or low till agriculture because farmers don't have to be going up and down the fields cultivating. They can just spray once, get rid of weeds and that's good for the season. If that were all that were involved, that would certainly be a good thing, but on the other side, critics note that the use of glyphosate and other powerful herbicides depletes the soil of organisms that are essential to building up fertility. Soil is a—soil consists of communities of microorganisms and if they are not healthy, the soil is not healthy. So we have these competing claims on both sides.

Ronald MacKinley (L): Could I just interrupt you?

Pamela Courteney-Hall: Sure.

Ronald MacKinley (L): You're talking (Indistinct) problems here with RoundUp. Would you stop people that grow potatoes that aren't GMO but are also using RoundUp? There's an awful pile of land that goes into corn before it's planted, that would in the fall before they plow it and they'll go with RoundUp.

Pamela Courteney-Hall: Yes, which makes the problem of soil erosion all the more pressing.

Ronald MacKinley (L): Depends on the slope and your organic material in the soil. You'd have to go with what your organic material was. It depends on the history of the field. You'd have to know what the slope was but if you—a lot of people, a lot of potato farmers in the last few years have been using RoundUp, for instance. They go in, in the fall and they avoid using the—it kills out the couch. It kills out the couch. It's a lot cheaper to go in the fall. A lot of people that are into better soil management. We're not into it. We plow but we don't use RoundUp unless it was an old field that hadn't been broken up for 20 years but a lot of people are going into a field that's covered with RoundUp and then just going in, in the spring. Just, I don't see the end here but there's a lot of people doing that too.

Pamela Courteney-Hall: But there are also farmers on the Island who are doing research about intercropping, now the difficulty with that with large scale potato farming is - can the equipment handle it? But that will take us on a trap that's too detailed for what I want to accomplish here so I'll go onto the next slide, if you don't mind.

Another very big area of debate that we've heard throughout these deliberations is whether or not coexistence is possible. Can GM crops coexist with non GM crops? There are, of course, conventional farmers in PEI who want to grow conventional crops. They're not organic farmers but they don't want to be growing GM crops. So they're concerned about coexistence and also organic farmers are concerned about coexistence. Proponents, GM proponents say that buffer zones and separate handling of GM and non GM crops will take care of the problem.

On the other side, there are many contamination points depending, of course, on the particular kind of GM crop that we're talking about. For many of them, pollen is carried by wind or by insects. Seeds are carried by birds or animals and many of the contamination problems arise with harvesting equipment, storage, (Indistinct) transport containers and in mixed farms and farms in transition.

The question whether coexistence is possible is a question that, many questions related to GM crops has to be handled on an organism by organism basis. What's true for canola may not be true for potatoes and so on. I'll go onto the next slide.

The claim is made that GM crops give us improved insect pest management. The counter claim is that it leads to superbugs. Now neither of these claims is simply true on the face of it. It depends what kind of insecticide we're talking about, what kind of crop we're talking about and so on.

On the pro GM side, it's claimed that once you have the pesticide being generated inside the plant, there's a reduced need for insecticide spraying and that sounds like a good thing except when you reflect on the fact that when the plant is generating the pesticide, insects are constantly exposed to the pesticide. That means the problem of insect resistance is going to skyrocket and that, of course, is where concerns about superbugs arise.

I think you heard discussions about the BT monarch butterfly incident which gets misinterpreted on both sides of the debate. A claim was made on the pro GM side that there are adequate protocols in place to combat resistance. Now that would be crucial. If that were true, then

that would be fine. We could have these pesticide generating corn plants and cotton plants and so on and not have to worry about resistance, resisting insects developing because what happens is as soon as resistant insects develop, well the corporations have to go and produce an even stronger form of the pesticide in the plant or whatever. It means an ever continuing market for the corporations which for them is a good thing but for farmers it doesn't necessarily mean a good thing.

Ronald MacKinley (L): But if you don't, say for instance the Colorado potato beetle, there was chemicals on the market that would kill them and in the last say 10 years, those bugs got resistance to them so they got to come up with a new chemical. Now you're going to get resistance no matter what you have.

Pamela Courteney-Hall: You are, that's true.

Ronald MacKinley (L): You're going to get resistance to you, GM or non GM.

Pamela Courteney-Hall: But the difference is that when it's GM crops, they're generating pesticide all of the time so there's constant exposure. The constant exposure is just the textbook classic case of how to develop resistance. So there are two strategies that biotech corporations have advocated to deal with insect resistance. One is to have a high enough level of the toxin produced in the plant so that you can immediately kill off anything. Well that means high levels of toxins in the plant. They decompose in the soil. Those toxins and proteins persist in the soil. Is that what we want to have in our soil? So that's one important problem.

The second method that they use, I think is even more problematic and that is, they ask farmers to set aside resistance plots where the farmers, so the farmers say growing BT corn, the farmer is asked to grow a separate plot of corn that's not protected with any pesticide whatsoever. So the farmer who wants to maximize his crop production is being asked, okay over in this plot here, we want you to instead grow corn to feed the very insect pest you're trying to get rid of.

The idea is that if you have a high population of insect pests that haven't been through or exposed to the pesticide, then when mating happens, the

likelihood is that any resisting insect that developed in the BT field, chances are it's going to mate with a non resisting insect over here from this field and so you're not as likely to get a problem of resisting insects developing because once they mate, the resistance is not likely to be handed down to the next generation.

But you see, you're depending on certain mating patterns to happen and it certainly is possible that mating can happen in the BT cornfield. Not only that, they're asking farmers to do something that I think certainly in the age of chemical agriculture, is profoundly counter-intuitive. Grow a field in a monocultural situation and leave it there unprotected for the purpose of growing the very pest you're trying to get rid of. If I were a farmer, I'd have a real hard time with that one.

Wilbur MacDonald (PC) (Chair): I'm going to ask, Ron, that we finish the presentation because we are running behind time already.

Pamela Courteney-Hall: So there are problems are involved in weed management. I think I kind of talked about them briefly. It's claimed by GM proponents that GM crops are ecologically progressive. They claim that transgenic pollution risks are manageable. They claim it reduces pesticide use and it's called just another form of plant breeding. On the other side, GM critics say that GM crops are ecologically destructive because transgenic pollution is impossible to manage. Unlike oil spills or chemical spills, once a trans gene gets out into the environment, it can proliferate and spread and recombine in unpredictable ways.

So that's the risk to nature that has many critics concerned. There's also concerns that it increases dependence on pesticides and a lot of criticism of the claim that it's just another form of plant breeding. Instead it involves an unique recombination of species that does not occur in nature. Why I call this a myth on both sides, again is because you have to discuss the question organism by organism. You're not going to get the same environmental concerns with the various different kinds of GM organisms that have been produced.

I think we've heard a lot of criticisms about claims of feeding the world's hungry on the one side. There are also concerns on the side of GM critics

that GM crops will be to biotech tyranny, where corporations will control every aspect of the food chain. That depends on governments not being able to put in regulatory procedures to stop that from happening. What's unique about this whole mess of polar myths for Prince Edward Island is that Prince Edward Island doesn't need to have to be part of the experiment. There certainly is an experiment on human health, on environmental impact and so on, happening in the world by biotech corporations and it's not being constrained by governments because of a lack of funding and certainly a lack of will.

Other provinces in Canada can't help but be part of that because they don't have the kind of insulation around them that enables them to realistically ask the question - should we either go GM-free or have a ban on GM crops, I mean have a moratorium on GM crops. Prince Edward Island is uniquely situated to be able to ask that question intelligently and take action on it. You might be hesitant to do something that seems so radical as banning GM crops. You might be worried about a lot of repercussions and lost opportunities but one thing I haven't mentioned, of course, is the opportunities in the marketplace for an Island that can claim itself to be GM-free and I think Raymond Loo is talking later today about those market opportunities.

But what PEI can do is not have Islanders be guinea pigs in this experiment and not have the Prince Edward Island landscape be part of this experiment. Let the experiment go on in other areas in Canada where people don't have the geographic ability to resist and here it's possible to just declare a moratorium until there is more data because what we have on both sides, we have myths, polar myths, a great deal of uncertainty, a lack of an effective regulatory system to decide these crucial questions and there's no reason why PEI has to fall along in the tide. That's what I have to say.

Wilbur MacDonald (PC) (Chair): Any questions from members?

Ronald MacKinley (L): I have one - getting back to GMO ready soybeans, for instance. The farmers plant that. It's not because they don't have to spray. It means they can spray at anytime when the weather suits because once soybeans come up through the ground, the regular grown

non GMO soybeans, you got to hit them with a chemical before they come through to clean up the ground.

Pamela Courteney-Hall: I'm aware of that.

Ronald MacKinley (L): This way it gives them a bigger window so that's why they're using GMO ready soybeans is because it's more economical for them to go in and if it's too windy say for a week or you get a wet week like last week in the spring, well this means they can go in a week later when the weather is nice. Resistance to GMO products like I think you're quite right in it but all the chemicals, most insects get resistance and that's why they come out with new chemicals all the time.

Pamela Courteney-Hall: Yes, but as I explained, that gets accelerated if the insects are constantly exposed to the pesticides.

Ronald MacKinley (L): Well what happens is here though, if you say for instance, you used Lygon which is an insecticide and the rate is 10 litres covers 22 acres. Well a lot of farmers, I'm probably guilty of it myself, if you go in with—you could probably cover 34 acres, a single amount. But what happens is when you keep doing that, it's against the directions and then the insects will get resistance to that. Or if you go with the Sencor and they're talking 200, it used to be 380 grams and then the farmers found out it would work at 200 grams so now the rate was 250, but then you'd get into what you call your super weeds and those are weeds that are resistant to the Sencor chemical. So no matter what you do, you're going to get resistance.

Pamela Courteney-Hall: Yeah, but one problem especially with all of the BT corn, BT cotton and so on, is that BT is a toxin that has been used by farmers for over 45 years. It metabolizes very quickly. In 45 years, no deleterious impact on human health has ever been shown. So BT is a really valuable pesticide that's safe even for organic farmers to use. But once biotech corporations infuse it into plants and insects are constantly exposed to it, this incredible heritage that we have, this very valuable toxin will be lost in its ethnicity. So that's a part of what is now the common wealth, it's a toxin produced by a bacteria that occurs naturally in the soil. It would be exploited by biotech corporations in ways that

eventually are going to mean that it will no longer be useful.

Ronald MacKinley (L): They came out with a BT . . .

Pamela Courteney-Hall: Let me just finish. So that's like mining a valued shared resource, mining it until it's exploited and no longer usable.

Ronald MacKinley (L): They came out with a BT for the Colorado potato bugs, organic farmers, conventional farmers would use the chemical. That particular chemical has got to go on just at a certain—there's a very small window in order to get it on, in order to do it and what happens. . .

Pamela Courteney-Hall: That's exactly why insect resistance doesn't develop with the way BT is usually used.

Ronald MacKinley (L): . . . No, there's a very short window when you spray it on. And what happens insects sort of digest it and sort of blows up or something.

Wilbur MacDonald (PC) (Chair): Wayne.

Wayne Collins (PC): Thank you very much for your presentation. You referred to earlier on to a defective regulatory system that we have right now and again, I want to come back to testimony that we heard from Health Canada and they tell us they're taking a comprehensive team approach to assessing the safety. They consider how the food was developed, a careful review of the genes introduced, the source of the genes at the molecular level, the composition of the food, chemical and nutritional, all considered for any toxic or allergic reactions.

The data that is submitted by the petitioner is reviewed by a team of scientific evaluators representing expertise in molecular biology, toxicology, chemistry, nutritional sciences and microbiology. During the evaluation, a thorough analysis is conducted of the data submitted and of the protocols that were used to acquire the data to ensure the validity of the results. Additional research or testing is required if Health Canada scientists are not satisfied at any stage in the safety assessment process.

In addition, evaluators often take into consideration

data published in Canada or internationally that's relative to the product in question. At the completion of the safety assessment, if and only if, there are no outstanding concerns regarding any aspect of the safety assessment and it is determined that there are no health risks associated with the consumption of the GM food product in question, a document proposing that food be permitted for sale in Canada is drafted. Then this proposal which contains a summary of the scientific reviews that were conducted by the relevant bureaus of the Food Directorate goes to the Food Rulings Committee for consideration.

This committee chaired by the Director General of the Food Directorate is composed of Food Directorate senior management and representatives in the Canadian Food Inspection Agency. If the proposal is found to be acceptable by the committee, that is there are no outstanding concerns regarding its safety, the petitioner is then notified that Health Canada has no objection to the sale of the novel food product as human food in Canada.

Now I realize that the essential scientific data does come from the petitioner. But is that not the case when we assess medical drugs?

Pamela Courteney-Hall: And has the track record been very good there?

Wayne Collins (PC): Well we've saved a lot of lives. A lot of good drugs have been developed over the years and a lot of people have been helped and a lot of suffering has been relieved using that same general process.

Pamela Courteney-Hall: Don't you think it would be a far better system if independent testing took place?

Wayne Collins (PC): I don't know that for sure. I mean, what is it that—I just read from a presentation of Health Canada, their general outline of their process of regulatory review. Why is it defective?

Pamela Courteney-Hall: Ask them the question - have they changed the policy concerning substantial equivalence? Okay, that will be an important question to ask. A question I want to ask you is do you believe that a scientist working for a corporation who has a very good, high paying

job and has a lifestyle that goes along with that high paying job, scientists working for a corporation who finds some hint of problems in a certain organism that they've been developing, do you believe that for all scientists in that situation, no selection and no filtering of the data, no filtering of their findings ever goes on?

Wayne Collins (PC): So you're saying you're laying out the theory here that an unethical scientist working for private industry is going to fudge the results to try to hoodwink Health Canada.

Pamela Courteney-Hall: The history of science is full of fudging for far less of pecuniary purposes just for statute and so on. The history of science is full of. . .

Wayne Collins (PC): So you're saying that's where the defective part comes from during the process?

Pamela Courteney-Hall: That's the one reason why people don't want to allow conflict of interest in any area of our society. When conflict of interest exist, we try to build in structures to prevent people from being tempted to filter things. It's about stopping the temptation.

Wayne Collins (PC): Do you have any suspicion at all that once that documentation, that scientific information data is in the hands of Health Canada, that Health Canada officials, sworn civil servants of the land would in anyway fudge their results and their study in anyway to favour industry?

Pamela Courteney-Hall: Fudging can always happen. Human beings aren't perfect and so that's why it's very important that we have structures and processes in place that minimize the harm that such motivations can lead to.

Ronald MacKinley (L): Well, if you go back to this committee and the premier of the province, Pat Binns suggested that maybe we should go GMO free. The vast majority on this committee is bossed by the premier so do you think we're just wasting our time coming in here? There's only two Liberals, there's only two votes here from the Opposition and do you think that they're going to just follow what the premier says? Like I mean wherever you go, you're going to be in a conflict situation.

Unidentified: (Indistinct comment)

Ronald MacKinley (L): No, but when you look at it that way. Like if you follow through on Health Canada and your recommendations, we would say—well let's just pack it in. Let's go with what the premier said and not have committee meetings because one, two, three, four, five, six on this committee or seven—their boss came out with this idea and the other civil servant up there works for, I believe, government somewhere. I don't know necessarily who we works for, is it agriculture? So he works for agriculture. He's working for us now. So in other words, you've got to put trust in something. Wherever you go, you're going to get into a conflict. I don't know how you'd, I mean. . .

Pamela Courteney-Hall: Well in a democratic society, you have as much trust in people as you can and you try to build up processes that minimize problems with conflict of interest.

Ronald MacKinley (L): But I mean everywhere you go, you're going to be in certain conflicts.

Wilbur MacDonald (PC) (Chair): Okay, I'm going to ask you to be short with the questions.

Honourable Philip Brown (PC): I want to ask, really I appreciate your presentation because it speaks to this polarization and the debate and just to carry on it, this whole area of trust is what's evolving or the lack of trust is what's evolving. I guess I am a little concerned on the heels of previous people is that you're a professional. You work in—you have colleagues in the private sector. The university, for example, takes research grants from different institutes that want to get certain research done. Does that mean that they're buying the research, that they're buying the outcome, why are they even bother doing the research, just say—well this is the outcome and we're going to get somebody to put a stamp on it? I'm very troubled if there is this complete lack of credibility within the system that everyone can be bought and sold.

Pamela Courteney-Hall: There are independent funding agencies certainly. Shurik is one of them and RC is another. But the funding that we're talking about for the food safety testing, that's being provided by the very corporation that's trying to get the organism to be certified. So that's such a flagrant conflict of interest situation. It's amazing

that we rest our regulatory process on.

Wilbur MacDonald (PC) (Chair): But this is a very crucial point here. I think it's one of the major crucial points that we have to answer and I thought when Wayne gave the report of Health Canada, he indicated that there were independent people looking at that too. So I am surprised and perhaps don't understand why all of a sudden that everybody associated with Health Canada somehow or other is biased and untruthful and so on. That is very hard to understand.

Pamela Courteney-Hall: But certainly not anything that I said.

Wilbur MacDonald (PC) (Chair): Well I think you've indicated that. . .

Pamela Courteney-Hall: I was asked is it possible that someone from Health Canada could fudge results? My answer was that people in many situations fudge results. It's possible that a person could if the motivation is there but I did not say that people in Health Canada routinely fudge results, certainly not.

Wilbur MacDonald (PC) (Chair): Okay, you just gave that as a possibility?

Pamela Courteney-Hall: I was asked is it possible, and I said—yes, it's possible.

Wilbur MacDonald (PC) (Chair): Well let's clarify it. Maybe Wayne, I should bring Wayne back in.

Wayne Collins (PC): I was just going to say, I want to reiterate again that one of the pilot projects under the heading of transparency that Health Canada is now involved in, is to have an external expert come in and work with them on the Food Rulings Committee's deliberations on novel foods. Apparently, we're expecting the first participation from one of these roster of experts this fall. I don't know if it's already happened. We'll find out when Health Canada gets here but would you find that heartening anyway?

Pamela Courteney-Hall: It's an improvement but an external examiner can only cast a judgment on the data that he or she has received. Any data that didn't make it through a filtering process isn't going to be there for assessment. I sit as an

external examiner on PhD committees all the time. I only see whatever results that are reported. A student, a PhD student who does a full, fair, comprehensive, ethically-minded job in his or her research is going to have all the findings there, both the findings that support the thesis as well as the findings that question her thesis. Does that situation happen for a corporation that desperately wants to get its products certified because it's put so many years and so much money already into the process? I think that there's a conflict of interest there that the typical PhD student doesn't necessarily face.

Wilbur MacDonald (PC) (Chair): You indicated that. . . Go ahead, Ron.

Ronald MacKinley (L): (Indistinct) when you go to the store and buy an organic bag of potatoes, well they're stamped organic but it can be somebody growing them and then there had to be somebody that would inspect them as being organic—you got to put your trust there to a certain extent that the person who verified that is an organic farmer. Then you got to also—they can't live there all the time—you've got to make sure that if there's blight or something in the air that they didn't use a fungicide instead of a product that's not labeled to use. There's a lot of trust built up there too everywhere you go. You have checks and balances.

Pamela Courteney-Hall: There's also a very strong process in place for organic certification. If you talk to organic farmers, you'll hear about the horrendous details that they have to go through.

Ronald MacKinley (L): Yeah, you got to go through them but I'm not saying that you couldn't put say, if you had blight—are they checked? Are there potatoes taken out at random samples and checked for any type of chemical residue and stuff like that? Like if you're growing a field of organic potatoes, for instance, and let's say there was blight in the area. Well we know that Acrobat will get rid of A2 blight at a certain stage, it will go in. So if an organic farmer sprayed a field with Acrobat which is a systemic fungicide to get rid of A2 blight, when those potatoes are being dug, is there anybody comes along, and does random samples every so many potatoes every load and then tests them for chemical residue or are they just certified organic because they follow certain rules?

Pamela Courteney-Hall: I think once you discover blight, it's typically too late.

Ronald MacKinley (L): No, it's not too late at all. That's why they use Kocide and some of those approved. There's approved natural type of material that you put on to get rid of the blight or control the blight. It won't get rid of it really but it will keep it under control. So what I'm saying is—are these potatoes random sampled by an independent firm? See you could test for residue. If you're shipping potatoes to the US - a) there's certain chemicals we use in Canada. There's certain chemicals you can't use in the states. Like they got to be registered in both countries in order to ship in there. If you're shipping—if you happen to use a chemical fungicide that's not registered in the US, they can take samples of potatoes every so often at the border and if that fungicide showed a trace of it in it, then that whole shipment is quarantined, et cetera, et cetera. So does that take place in organic?

Pamela Courteney-Hall: Well the process that's in place is one that if anything were discovered, that organic farmer would lose his or her certification.

Ronald MacKinley (L): Yeah, but do they test? I'm asking, do they test these potatoes when they come in?

Pamela Courteney-Hall: I don't think that they do post harvest testing, no, but I mean that's an entirely separate issue.

Ronald MacKinley (L): Well they would find out if there were any wrong chemicals being used. I'm saying they trust the farmers. I'm not saying it would happen but it can. Anything can happen.

Wilbur MacDonald (PC) (Chair): Thank you very much. I'm going to have to call it because we are running away behind but at the same time, Pamela, we appreciate your presentation this morning. You certainly gave us some interest—how do we put it—when we meet with Health Canada, we're going to have to be ready. So thank you very much.

Part III - Deborah Kelly-Hawkes and Blair Ross

Wilbur MacDonald (PC) (Chair): Our next presenters are Deborah Kelly-Hawkes and Blair

Ross. Would they please come up? Blair, you're going to start? You can sit down, if you like.

Blair Ross: No, that's fine. Thank you very much for the opportunity to speak to you gentlemen today on PEI free GMO zone. This is presented by me and Deborah Kelly-Hawkes on behalf of the PEI Fundamental Rights Party that is now in the process of being formed.

When in the position of power, the PEI Fundamental Rights Party would immediately declare PEI a GE-free zone. There are many fundamental reasons for this declaration, some of which will be presented here today. Allowing GE food crops to feed, to grow, to be purchased by those individuals living on Prince Edward Island is a egregious breach of trust. Individuals of all ages in Prince Edward Island have an inherent right to be informed of consent.

Informed consent is used in tort law where a patient must be told the nature of risk of a medical procedure before the physician can validly claim exemption from liability or battery or from responsibility for medical complications. It appears that full disclosure has become as nonexistent in the PEI Justice department as it has in all government departments.

Since Confederation, the PEI Legislative Assembly have a legislated duty to protect the health of those living on Prince Edward Island and also the others who consume food products and purchase feed products grown on Prince Edward Island. Assuming that those living on Prince Edward Island and others should put their trust in large multinational chemical corporations such as Monsanto when federal and provincial governments regulate pursuant to legislation and whose only objective is to receive money or put their trust in farmers who are willing to harm themselves and others by using fungicides, herbicides and pesticides that are known to cause serious health risks from deformities to death is reprehensible, let alone when we know nothing as yet to the serious health risks to humans and other earth inhabitants when GE food crops and feed products are purchased and consumed.

The PEI Fundamental Rights Party will do everything in its power to ensure the health of their members, their members' children and all other individuals who come in contact or consume food

crops or purchase feed products grown on Prince Edward Island or brought into the province from other province or country. The so-called claim that faster growing food crops, feed and fish and larger products are what we need and GE can provide also a non issue as the PEI Fundamental Rights Party would ensure that nature's process of a natural selection would be the process used.

A slower process indeed, however, the most healthiest outcome and the best possible way to ensure the best taste forcing nature to behave differently than what can naturally occur, can only lead to outcomes beyond repair. Any negative effects or reaction to GE products could indeed in the present and in the future be treated with manmade experimental drugs and other chemicals, thus finding in the future that there is also a reaction to the treatment. The effects of this contamination is well known and documented time and time again.

The time is now to ensure a worldwide GE ban to mitigate the damages that have already occurred, forcing living creatures to live in a contaminated, crowded and unnatural environment is naturally going to cause a living creature stress and this environment is in inhumane. These creatures, as do humans are less able to keep themselves the healthiest possible and are contaminating healthy stocks and the extinction of others and governments are enabling instead of protecting as legislated.

The PEI Fundamental Rights Party would ensure that scientific data experiments and research would ensure food crops and feed that are healthy and that the challenges of fungus would be the focus of utmost importance. The time is now to ensure a worldwide GE ban to mitigate the damages that have already occurred.

The PEI Fundamental Rights Party would ensure that scientific data experiments and research would ensure food crops and feed that are healthy and that the challenges of weeds to ensure the best potential healthy growth rate would be the focus of the upmost importance. The time is now to ensure a worldwide GE ban and to mitigate the damages that have already occurred.

The PEI Fundamental Rights Party would also protect the rights of insects or pests as they are sometimes called. Insects have a right to be on

PEI unharmed. The PEI Fundamental Rights Party would ensure that scientific data, experiments and research would focus on how to ensure crops that thrive and insects to remain alive and well. The time is now to ensure worldwide GE ban to mitigate the damages that have already occurred. We believe this can be done in the 21st century.

The claim that GE crops would allow for less pesticide use as GE crops could be resistant to pests would be a nonissue if the PEI Fundamental Rights Party were in a position of power as fungicides, herbicides, pesticides and other known manmade chemical substances that cause harm to an individual would be banned. These chemicals that cause serious medical conditions and even death would be banned immediately.

Deborah Kelly-Hawkes: Due to blatant brainwashing other harmful chemicals would need to be gradually banned in order to ensure at the earliest possible moment, healthy air to breathe, healthy food to eat and healthy water to drink, for all, pursuant to the legislation. As opposed to breathing air that is harmful, eating food that is harmful and drinking water that is harmful which is criminal.

The statement of Environment Minister Jamie Ballem as recorded in The Guardian newspaper on Thursday, October 6, 2005 in reference to the fact that pesticides were under new rules and I quote, "a lack of data left the province trying to balance people's right to be free from spraying with the farmer's right to farm". This is the same thing as saying that the province is trying to balance people's rights to be free from harm and the farmer's right to harm people in order that the farmer may believe that they are making a profit from the food they produce and providing a public service.

The PEI Fundamental Rights Party believes that no human being has the right to harm another human being and that includes those that consume the food crop or consume the animal who eats the feed and most importantly those individuals who work in the fields and those who live near the fields or factories.

Other issues would also become nonexistent: domestic and non-domestic pesticide sale, purchase, application, storage, transport, handling,

loading and mixing, posting/notification of applications, training (applicators, vendors, other) examinations, certificates, permits, agricultural and non-agriculture areas, provincial visitors' guide, insurance, records and their availability, fees, display, disposal, wind speeds, buffer zones, fines and, in general, the protection of human and animal health and the natural environment.

The PEI Fundamental Rights Party would ensure that scientific data, experiments and research is focused on the preservation of our soil with the best possible organic matter content and the ability of ourselves and our children to play and walk on the ground and in fields without the threat of harm. Instead we are being forced to walk and live near contaminated sights.

Another important factor in GE food crops and feed and the use of chemicals embraced by governments versus those which are grown naturally or organically is Taste. Food that tastes like cardboard is simply allowing children who watched the TV show The Jetson's in control. These adults believe that human beings can get their nutrients provided by pills, so who needs healthy food. Any individual who believes this is dealing with a childhood trauma associated with food and needs to see a counselor as soon as possible to ensure the health of those who are under their care and control and to mitigate damages that have already occurred.

GE food crops and feed have the ability to contaminate non GE food crops and feed. The PEI Fundamental Rights Party would focus on ensuring biodiversity and heritage seeds, in particular crops that require manual labour for harvest as opposed to mechanical. It is now time to treat our food with respect.

The PEI Fundamental Rights Party's number one concern is that the people who live on PEI are healthy, wealthy and wise. An individual who is healthy shows the world that they are healthy physically but also when they are able to show the world that they are healthy emotionally, sexually, socially and spiritually by showing the world that they are wealthy in love, kindness and empathy and when they show the world that they are wise in their selection of healthy foods and who they allow themselves to trust to keep them safe from harm.

That's the end of our presentation. The only thing that I would like to request is since I was working all summer for \$8 an hour and I have no transportation costs, if there was any monies available so that low income people from the rural PEI could make presentations such as myself because I had to put my gas on the credit card today which I won't be able to pay off till 2010, 2012, 2015 perhaps. So if there is any money for transportation costs, that would be lovely.

Thank you very much.

Wilbur MacDonald (PC) (Chair): Do we have any questions? Just a moment - maybe some questions. No questions? Okay, there's transportation costs, we'll ask Marian to look into it.

Deborah Kelly-Hawkes: Okay, thank you. I appreciate it.

Blair Ross: Thank you very much.

**Part IV - PEI Organic Producers Association:
Raymond Loo**

Wilbur MacDonald (PC) (Chair): We now have the PEI Organic Producers Association represented by Raymond Loo and if there's other people who wish to come to the front, they can come with you too, Raymond. Just take a minute while we get a cup of coffee.

Raymond Loo: Sure, that is great and we can set up the computer.

Wilbur MacDonald (PC) (Chair): Okay, Raymond, if you're ready.

Raymond Loo: Thank you for the opportunity to speak here again today. I want to make it clear at the very first that I'm presenting on behalf of the Steering Committee and not the organic community, just the organic community. I want to list off the names of the people or give a very quick review of how this all came about.

I, and a bunch of other people in the organic community, felt that we needed to have a serious, an economic look at the economics of GMO-free and the possibilities of marketing GMO-free products around the world. We felt that we should have it wider than just an organic community so

we invited George MacEwen who is a dairy farmer in a hay and grain farm, a conventional farmer. Gerard Mol who is growing genetically modified canola this year and flax and potatoes. Guy Cudmore who has hogs and potatoes. Fred Dollar who is an organic potato farmer and grain. Pete Langdon with North Shore Adventures who brings in bus tours and we want to get a tourism view of what it is going to create some kind of opportunities for tourism as well as just the agriculture. John Hardy who has soybeans, grows soybeans and does organic tofu. Myself as chair of the PEI Certified Organic Producers Co-op. Susan MacKinnon from the Department of Agriculture and Brian Douglas, Director of Agriculture Development.

So what we did was we sat down and first, we had to find sources of funding to hire a consultant and then we came up with terms of reference and so on that we want to assess the possibilities of GMO. So it's not specific to organic, although you're going to see references to organic through here but it's basically to look at the whole picture of benefits and so on, benefits if any, to PEI being GMO-free.

So the project—I've gone through a little bit of this - this is basically the way I'm going to present the outline and again, the purpose was simply to try and find out what the economic benefits may be. So what we did was we set the objectives to look—we wanted to look at international, Japan, Europe, United States of course, and all different markets to try and find out what - number one is what kind of markets are there and how we would be able to get into them.

We wanted to look at other production zones, GMO-free production zones and see how they were managing. We found in the literature review of the George Morris Centre—I will say we hired the George Morrison Centre out of Guelph to do this study and I'm not sure if they worked for organic farmers before but they've worked for certainly a lot of different agriculture interests across Canada.

What we found, what they found it's difficult to just actually put a dollar value on the market demand for non GM products because it's changing and it's really country specific. Certain countries certainly are willing to pay premiums, Japan and Europe in particular. There's quite a difference degree of

awareness regarding GE foods and I'm going to speak to that later in my recommendations. But what they found in the United States, for example, is very little awareness at all about what's going on and it's just a country that has the most because there's no labeling and it doesn't seem to be in the media very much.

Consumers' perception towards genetically modified foods follow their willingness to pay. In other words, if they're willing, if they're actually interested in buying organic, for example, they're paying a premium so they're willing to pay a premium for food and the two groups kind of go along together. In other words, the people that are willing to pay premium for organic are probably willing to pay a premium for GMO-free as well.

The attitudes toward foods vary quite substantially and generally Europe is being recognized as being anti-GM. Japan is very cautious and it's due to they've had several food scares in Japan in the last few years. They have a five per cent tolerance of GM in their—if you sell soybeans, conventional soybeans, you can have up to five per cent genetically modified in there and they will still go through as non-GM. Now having said that, there's a zero tolerance for organic soybeans going into, there's no tolerance so just to make that differentiation. The same in Europe, if there's any country that have tolerance for GM. So anytime somebody says there's a tolerance for some GM products, it's for conventional not for organic.

Canadians, they found when they did their—they were questioning--did their study, they were quite suspicious of GM foods and they seem to be more aware of risks than benefits. But as consumers, it's really hard, it's almost impossible to find anything. It's not labeled in the stores so the only way that they can get non-GM is really buying organic. So that's one of the issues we're going to - we need better labeling probably before we're going to see a big increase in market in North America.

The United States is most acceptance of genetically modified foods and it's not a very, and they're the most prevalent in the United States as well. Australia is quite quick to react to global concerns and it's mainly because of their exporting an awful lot of product into Europe and they're very, very concerned about maintaining that market into Europe. They have a very low

tolerance for presence of GM, one per cent. So they're keeping it very, very tight so they can maintain markets into Europe primarily.

GMO - one of the things that comes out all the time is there's a very poor understanding of what a GMO is. I think we hear it all the time people don't really know what it is. Some people will say it's a continuation of what's being going on for a long, long time. In actual fact, it is using very different technology so this slide is just in there to say—there's a lot of confusion and one of the challenges to marketing a non-GMO product is actually being able to tell consumers what a non-GMO product or what a GM, what they are.

What they found in the literature review is there is already quite a few GM-free zones around the world. In some cases, they're just, they could just be a town or a village that has declared itself GMO-free. In certain areas, that's happened. You can see it happening in California. They had a plebiscite there or an election awhile ago and it was on the ballot and they voted to become GMO-free but of course, it doesn't carry any power until it's—it's not legally binding at all.

We were trying to find out and one of the things I'm going to say of this report - I'm going to give you a copy of it but it is still a draft. We don't have the final report. We're trying to find out more information about how the different zones regulate and how they're marketing and what kind of premiums they're getting for their product when it does come out of there.

What we found is that there are quite a few issues around declaring a GMO-free zone. It really requires—what's happening in Australia, it's very farmer-driven more than a consumer-driven because they're trying to maintain and keep their markets in Europe so they're very—they seem to be working together very well and actually it's the farmers who are trying to keep the government from doing testing and that sort of thing.

You need to have probably enforcement and regulation if you were going to declare a zone GMO-free and that takes quite a bit of effort and there's going to be some resistance from—could be quite a bit of resistance from some of the biotech companies. So I'm just saying some of the things that this study found.

The benefits, on the other hand, it would minimize impact on non GM producers, organic producers and identity preserved markets. So we might be creating a great benefit for people who are wanting to market non GMO. Again it would create opportunities for companies wishing to produce identity preserved and non GM seed. That's one of the issues, canola for example, I'll just mention it. It's getting quite difficult to get non GMO canola seed even for the people who want to plant it so there maybe opportunities here for that.

When we tried to do a review on what's going on in the GM-free zones - the severity of regulations and legislations varies depending on the country. We'll go through some of the countries here but it's really quite—I think what's happened here is the technology has gotten ahead of the laws and many of these laws that were written a long time ago, they had no idea there was such a thing as a genetically modified organism and these things are coming on very fast and a lot of the countries are trying to catch up and put in legislation. So the European Union adopted a new set of regulations pertaining to commercialization of GM foods and feed.

Basically, what they're looking at to a large extent is traceability and keeping a very close track of what's going on, what's planted and where they're going. The new labeling rules introduced to enable consumers to better identify GM food products but that's going on in Japan and Europe. In North America, we still don't have any new labeling. So until that happens, it's going to be difficult to get a market going probably in North America.

In Australia, they have approval of GM, genetically modified crops as the federal government has but territories are banning in place of moratorium, particularly in canola and that's farmer-led to a large extent. So it's an interesting thing where the farmers are trying to preserve their markets.

Italy has a new coexistence legislation which gives each region the ability to choose whether or not to ban GM crops. Now I'm not exactly sure how they're going to—what they're setting up to monitor it. All of these things are just being developed and we would suggest that you guys have to check into what other areas are doing.

Germany holds the producers of GM crops

accountable for any contamination that may occur in non-GM crops and I see that as being quite problematic myself if you're going to have—you know if I'm sitting in the middle of three other people and I'm growing a non GM crop and they're growing GM crops, how do I know which farmer's pollen that was and it would just—I can see it being very, very acronymous in the farming community.

The primary research was done, there was 33 companies were contacted and asked a number of questions: Future demand for non-GM, their idea about future demand for non-GM products and commodities. Characteristics of (if any) expected change in demand. Do you purchase products/commodities from GM-free zones now? Decision-making influences. Would you pay a premium for products guaranteed from a GMO-free production zone? And the country demand for non-GMO products and commodities. In other words, looking at the whole country.

These questions, I will say, we have a 91-page report here with all kinds of charts and graphs that you guys can be able to look through and see the results that were. . .

Wayne Collins (PC): A question here, Raymond, these 33 countries, were they food retailers?

Raymond Loo: They were a combination of food retailers. There were some feed companies that would be interested in feed. There was a whole list of mostly retailers and feed producers and so on. But some were wholesalers who would be buying product like into Japan, for example, where you have trading companies that are buying products. So they talked to some trading companies in Japan. They talked to different people in Europe.

Wayne Collins (PC): These were companies Canada-wide, were they?

Raymond Loo: Canada, the United States and worldwide. I mean, there were 33 countries picked from. . .

Wayne Collins (PC): I see, a total of 33.

Raymond Loo: Yes, a total of 33 and they were given a question, a big long questionnaire with more questions than what we've got highlighted

here. The idea is that they would be able to give a pretty good idea from a retail point of view and from a wholesale point of view what they see the market doing.

What came back was that the drivers for non GMO products were from a consumer end were health and nutrition. A lot of consumers, the same consumers who were buying organic and they're buying, they're going out to buy the health food type food and they were the population that were most likely to be concerned about non GMO.

The producers, the people who are producing GMO and there were some producers that were interviewed as well. It's personal values and environmental issues that was mostly driving the people growing the non GMO, the retailers they were interested because it was an extra assurance of basically, a production standard that they would have and it helped them with the risk management and they say there's marketing opportunities. Any retailer who wants to have something on their shelf that sets their product a little bit different

The processors and distributors, they see traceability and reduced transaction costs with being able to have identity preserves and everybody seems to be getting involved with wanting to have traceability right from the farm to the shelf and they see this as being a benefit.

The input suppliers, they were increased in value. It's higher value. You can get more money and they were interested in making more money before from the product.

The demand, on the demand side, the demand for non GM is increasing as less production of non GM crops are being produced because genetically modified crops are being, are increasing around the world. So there's an added demand to try and find non GMO crops. GMO crops again, non GMO crops have a greater traceability. In other words, everything that's basically what's going on, if they're genetically modified or if they're conventional or just going in a big bin, they're not traceable back to the farmer. So if you're selling something as a specified non GMO crop, it's easier to trace it back to the farm and retail's going in the direction of traceability. It seems to be the. . .

Organics is a growing market and consumers

know that these products are GMO free and certainly in North America, that's the easiest way for somebody to find a non-GM product and I would, as an organic farmer, I would say that's probably one factor that's helping for our increased sales.

Consumers are looking for a product that will enhance health, environment and the experience. I think we're finding that consumers are—there are a certain percentage of the population that will always just buy in price but there's a certain percentage of the population that will buy according to what their values are and what they want to buy.

The current non-GMO demand is being pushed by the fresh, pure, un/minimal processed. Soy is particularly with soy food, tofu and miso; vegetables, fruit, bread, corn, meat, canola. But as we said on the bottom here, most crops are not available as GE anyway. There's only a few crops that are genetically modified. I think that again, if they're buying their bread other than the possibility of having some genetically modified oil or something put in it, the wheat's not genetically modified anyway in Canada right now. So people are sometimes confused about what is available and what's not.

The future demand, what these companies, these 33 companies that were asked, they think the demand for non GM products will increase or remain level over the next 10 years and it will max at probably 10 per cent of sales in a country. So something like what the organic is doing. On the one hand, that sounds like a small market but on the other hand, if you're looking at somewhere like Japan or the United States and that's a huge market. So it can be quite—they think that the lines are going to blur between non GM, organic and fair trade. In other words, the people that are going into buy them are all the same people kind of who are buying these products and their feeling is that's it's going to kind of meld together.

The future non-GM demand is influencing, influence of customers, increasingly sophisticated, informed and polarized. People are checking the Internet and they're checking more things all the time to try and find out where the food is coming from. They're hearing all kinds of stories. Additional desired attributes beyond the product. People are looking for something beyond just

cornflakes. They want special cornflakes. Seek guidance in making food choices. Apply same frame of reference to all choices, and I'm not exactly sure if I agree with that one but in other words, that kind of speaks back to the non-GM, organic and fair trade, this whole idea.

Feed demand is increasing quite rapidly and that's partly driven by the natural meat and the organic meat sectors that are growing and they have to have non-GMO products for their natural as well as organic. Less opportunity to create immediate value from crops. I'm not exactly sure where that one comes from but anyway. . .

Honourable Philip Brown (PC): That's on the feed side.

Raymond Loo: Yes, it's a feed and then the food, the higher value for crops that satisfy consumers and that just speaks to where people want to buy.

Honourable Philip Brown (PC): Feed supply too. (Indistinct)

Raymond Loo: Yes. The GMO-free approach, if we just have a GMO-free approach, they said it becomes a production (push) strategy. If you're still just producing a commodity by itself, it's still just a commodity approach. We have to have more and it won't benefit all the crops equally so some crops like canola probably would benefit much more than soybeans because soybeans don't spread as easy and soybeans are tested a lot and so on anyway when they go into a country. So they say there is, it's not going to be a really easy, there's not going to be a real easy solution.

A GMO-free zone is going to be a contentious and costly to establish. I think that's important to note. Potentially difficult to monitor and enforce because if you have cheaters, you're going to have monitoring. Protocols are more important for the buyer, from the buyer's end then the zone and that's what they found out is that it's dependent upon the downstream players is that if somebody is buying soybeans and they're buying a genetically modified free lot and they're testing it to make sure it's genetically modified free that that test is more important than actually where it necessarily came from.

In other words, they're assuming that it's going to

be—if you're selling it as GMO-free, then they're assuming it's GMO-free and if it comes from a GMO-free Island, it doesn't necessarily mean that they're going to pay more for it just because it came from that Island. So there are alternatives to establishing a GMO-free zone and I'm not saying here that we shouldn't establish a zone. It's just going through the different things. There's a due diligence approach and that would be creating the conditions that make sure that people can grow non-GMO products. So maybe that's buffer zones, big buffer zones around. Maybe there's a ban on certain crops in PEI. There's a whole bunch of different things. It's important to know that it's not from the marketing standpoint. One strategy is not going to fit all the markets. It's going to have to be looked at crop by crop.

There's definitely, respondents were definitely interested in PEI and there's certainly opportunities in Japan and other areas. They look at this Island as being pristine and clean and the east coast of Canada, we've got an awful lot of attributes we haven't necessarily sold and they would see being GMO-free as one other attribute. But it's not the only one and we'd have to merit it to a whole bunch of other stuff. It would be a market driven. They see that, I mean the George Morris saw when they look at this too, it's market driven where it works well.

So they see it being encompassing committed producers and we should highlight the Island to enhance protocol credibility. So we should save our own Island. That really helps us and we have to using that and we should look to the long-term nothing will happen overnight. In other words, it's not going to be—it's going to take us awhile to get all the protocols in place and so on.

The financial value of the consumer—from a consumer's point of view and when they're picking up a can of soy milk in the store and it's non-GMO and it says on the bottle that it's non-GMO, they take it as a given that it's non-GMO. And whether we're, whether it's coming—that I was speaking to you a second or so, whether it's coming from the Island or not doesn't necessarily mean they're going to pay more. So there's a limited value beyond this non-GM assurance.

Now it might make it much easier to give it a non-GMO assurance if we're from a GMO-free Island but from the consumer's end somewhere in the

world it might not be. So we have to look beyond just the non-GMO for advertising. We got to present the whole Island picture. If people are sufficiently concerned what they found out was in North America, these people will buy organic and they know it's GMO-free then. So they see it as a big opportunity for PEI to do organic as well, to expand, I mean if nothing else. Not to push organic but it is a ringing endorsement in this thing for organic agriculture having an opportunity to be GMO-free here.

In the organics end of it, they're saying it's an encompassing credence factors and it's get down to what Ron was mentioning here a little earlier. I will say, Ron, anytime that somebody wants to do a leaf sample or a product sample, they can and there is some random sampling done to check and make sure we're not cheating. But there is an honour system that everybody follows and we have to expect that people are going to obey the rules.

There's a bunch of tangible and intangible factors that attract consumers and their whole feeling, feeling of well being and all that sort of thing. GMO-free by default is associated with organic because it's organic, we're GMO-free so we're gathering up and of course, when you say it's organic and it has to be GMO-free, it's less risky than just making a statement, GMO-free to the extent that we don't have—them protocols are already in place and they're international protocols and they're being used. And there's positive connotations to being organic, I think. A lot of consumers see that as being a good thing. So they found when they questioned their 33 respondents that these were the kind of things that they answered back with.

They think that we have to target our markets. We have to be very careful where we're going to go with our markets so we can get the best bang. Non-GMO presents market opportunities, no question about it. The line between non-GMO and organics will probably blur because people are associating both together. When we say non-GMO, when you mention GMO to a certain percentage of the consumers they found and the buyers are saying that it's a negative term. An awful lot of people associate GMOs with negative terms. They associate organic or something with positive terms.

So they think we got to coach these wording rights so we don't end up—a lot of people might not and we'll speak to that a little bit later, but a lot of people aren't educated enough in really what GMOs are and they don't really know what they are and then they just think they're bad and they might associate. So we want to be careful how we word our—and non-GMO per se will become a commodity in a lot of markets because what's going on in Australia and so on where they have large, large acreages, they're still going to probably be able to beat us up on price so we're going to have to attach something else. You know, this Island is special, grow certain varieties and so on to make our extra money and again, not all crops benefit equally.

We have to identify the factors that will get us the most value. We have to do the in market assessment. Consumer segments with food and societal links like fair trade and that sort of thing. Quality, not volume, are the deciding factors for success. So we need to have good quality. You know just producing in large volume of cheap product doesn't necessarily do us very much good so we have to see how we get the most value out of your products. And we need to figure out cost-effective delivery with the price of fuel and so on going up. We have to get our product to market somehow cheaply.

Market Prioritization - market prioritization is food. Of course, in Canada we should be looking at Canada first. The United States is really close so we've got the north and eastern United States and California. Them were the areas, the northeastern regions in California are the areas with the most interest in non-GMO. Again it's going to be difficult. We have to market it as organic or as something natural or as some other attribute besides GMO-free because most stores won't label - there is no labeling on. You can't put on a GMO-free label. Loblaws scratches it off when it comes in from somewhere else with that label on it. So the United Kingdom, certainly there's markets there. Northern Europe, Austria, Switzerland, Belgium, Scandinavia and Japan.

In the feed end of it, there's quite large markets. It looks like in the New England States where you have a lot of organic dairy going on, natural chicken being produced and so on, certainly for proteins and barley. You see two opportunities, barley is not genetically modified anyway but for

the proteins and there maybe quite an opportunity to sell genetically modified free canola meal which is high on protein so if we want to start an oil extrusion industry, the oil is great and we can use it for a lot of different things but if we can get a premium for the meal afterwards, which is quite high protein because it's genetically modified, the oil you're burning in the tractor isn't going to matter if it's genetically modified or not. But if we can get a premium afterwards for the meal because it is coming from a genetically modified free crop, it maybe very much worthwhile and they're looking more into that George Morris to check more onto that to try and find out what kind—because Cargill, not Cargill but Tyson chicken has got a natural chicken they were saying and they're buying up an awful lot of the non-GMO soybean that was originally, traditionally would be going to the Asian market in the United States. It's driving the price of non-GMO soybean up quite drastically because Tyson is buying it to feed their natural chicken.

So that's a very, very large player of the chicken market in the United States and they're looking for protein. We're closer physically to a lot of the chicken then where it is being produced now. So there's opportunities there. And of course, there's opportunities for producing feed for Canada as well.

The food, organic and conventional is linked to unique credence factors, again organic has got its protocol of production so they see it as meat, pork, beef, all the meat products, milk and dairy, potatoes, fruit, there's all kinds of opportunities and again in the feed, the organic and non-GMO supported by—now GMO when they say supported by credence factors, it means it's got to come from testing or GMO-free zones or whatever.

The food in the United States, organic and natural is really the only way you can label it to get GMO status on the shelf. In Europe, you can label non-GMO so you have an organic and non-GMO markets with - and again they just list basically all the same products. There's markets for all the same in Japan. Organic and non-GMO markets, meat, beef and pork, value adding and processing. One of the things that we would probably need here would be some more infrastructure for doing some of the processing and so on if we're going to get our value back if we don't just be shipping a commodity. Dehydrated berries is another one. I'm skipping through here to get to the conclusion.

The general public is not well informed about the terminology. We feel that one of the things that came out of this report is a lot of people don't really know much about where, the whole terminology - GMO-free, natural, nutraceutical, functional foods, there's a whole lot of different terms coming out and we would see that there has to be somehow a better education and government is probably one of the players in that, that we can somehow educate the population because of what all these different things are because right now, they're really not very well. . .

Some markets will definitely pay a premium for non-GMO, Europe, Japan and some other Asian markets as well. GMO-free is a valuable attribute and there's concerns when they were talking to their, around the world that over the next five or 10 years, it might diminish but again, all you need is the media to pick it up and then it goes again. There's an opportunity to market PEI products with these credence factors and brand recognition factors that consumers want. So non-GMO, organic, natural, there's many different things and there's good opportunities and some crops are much easier to produce in close proximity to others. In other words, canola and some of the other ones are quite difficult to grow in close proximity.

I mean if you're going to really have a canola seed industry, for example, producing non-GMO seed, you're going to have to have a very, very large buffer zone around and there maybe an opportunity for the whole Island, I think, to be GMO-free for canola.

So the recommendations we would say would be - establishing a review committee to monitor GMO evolution. I think we've got about three crops here right now but there's probably many more going to be coming at us in the next while and that we should be proactive and get some kind of a committee together that's going to be able to keep an eye on what's going on.

We think you should be reviewing current legislation that exists in other countries and that will protect non-GMO producers while maintaining harmony among producers. So we don't like the idea, I don't particularly myself like the idea in Germany where you're pitting one farmer against another but I think you should look at all the different legislations and how they're being

designed in other countries, how they're enforcing it, how they're making—because what we want is to be able to maintain, anybody who wants to produce non-GMO products and sell it into a premium market, I think it's very, very incumbent upon the government to put legislation in place that's going to allow them fellows to continue to produce non-GMO products and expand that as that market is expanding around the world.

We think we should be limiting the planting of GMO crops that will over-winter. In other words, if the plant itself will over-winter or if the seed will over-winter or if the pollen blows in the wind. We see that as certainly that's got to be done very quickly because if we leave it too long, we're going to be like Saskatchewan and other areas where basically they just simply couldn't do what we're talking about doing. We still have the ability to declare this space GMO-free. It's certainly by certain crops and so we think that there has to be something done very quickly.

The creation of closer linkage between all parties of the value chain and ultimately the end market. In other words, we're looking at how do we—we got to figure out how we can get a premium price product right to the store shelf, right to the consumer and get out of some of the kind of commodity markets that we've been doing. I guess I skipped, no I didn't. Okay, so that's the end of my presentation. I'd like to entertain questions from people here.

Wilbur MacDonald (PC) (Chair): We'll start off with Cletus.

Cletus Dunn (PC): Your last two words there "end market", most of the presentations I've heard so far are dealing with health issues regarding GMO and the uncertainty of what's going on there. I guess my question is that using GMO products not for a food source but for an energy source. If you can react to that, like they're talking now about growing canola for as an energy source rather than a food product.

Raymond Loo: Absolutely, it's a big issue and I guess what we found and we're doing more. We haven't got the absolute final report back but if—from the oil perspective, if somebody's going to burn it in the tractors or in the houses or whatever, whether it's GMO or not, it doesn't make any difference as far as burning it in the tractors go.

But if we can get a premium price for the meal after it's extruded, you get all the protein that's saved out in the meal, the oilseed meal. If we can get a premium because it's GMO-free, then I see it as being actually something of an opportunity for PEI to look at that other areas probably can't do and it looks like there's a pretty large market for proteins just across the border in the United States which is not that far away from us.

So I would say before we start planting a lot of GMO canola around PEI to make bio-fuel, we'd better see what we're going to do with the meal that's extruded because I mean that's another valuable product that comes off. You won't make money just off the oil. You have to sell the meal as well and if you can get a premium for the meal, that will offset some of the inconvenience factors of growing. I mean really to a large extent the genetically modified canola is a little more convenient.

As far as the oil and the production and the yields and that sort of thing go right now, the non-GMO yields are very similar to the GMO yields so if you can get a premium—what we're saying here in this whole report is if we can extract a premium out of the marketplace, then we'd better be looking at that. That's what I would say - before we plant GMO canola all over the place because once you do that, you've lost the opportunity to go non-GMO.

Wilbur MacDonald (PC) (Chair): Philip.

Honourable Philip Brown (PC): First of all, Raymond, I want to congratulate you on your very astute presentation and very informative and will be helpful in our deliberations because you've brought both sides to it and you're coming at it from a market perspective. One particular thing that interested me was the difference that the Canadian approach relative and by extension, the PEI approach versus the Australian approach because we're both in the same situation but are large exporters of grains and oilseeds and other commodities. But it's who we're selling to that is determining the approach the agricultural community is taking on this.

By and large, our market is the Americans which as your research showed, have a lot of awareness of this and so this is not an issue to the average consumer, the average American consumer

because of awareness. Whereas the Australians, where their big markets are in Europe, they are saying—and this is producer-driven as you pointed out. Producers are saying—we don't want to contaminate the production stream because our market may close up on us and that's where I find the challenge, as legislators, obviously representing both consumers and producers in how they exercise their businesses. So I thought it was very good.

Another point where you talked about the whole thing is moving faster than governments are able to keep up to from a regulatory and legislative perspective and this is not the only area. International trade is pushing this. International communications, if you look at, yes we regulate radio and television but we have no regulation over the Internet. It's a median that's out there being utilized all over the world and nobody's got a handle on how to regulate it and this is another area where it's very difficult because companies. We use companies but that's not really fair, I don't think, it's producers and marketing arms are exploring production methods and market opportunities and they're just driving it - and I will conclude with Tyson's talking about natural chicken is a bit of a paradox. (Laughter)

Raymond Loo: Well, I think they're looking at opportunities, right?

Honourable Philip Brown (PC): And when you think of Tyson's looking at—and that's where you get into the market-driven, right?

Raymond Loo: Yes, so now you have Tyson looking for non-GM products and I think that's important for us to recognize that it's not necessarily just a little niche markets. It's not little niche players. It can be very large players. Suddenly, we're not looking at small amounts of tonnages. It's funny, when the Canola Council was doing their presentation here a little while ago and I was talking to the guy from the Canola Council afterwards and he was saying—well it's only, I think something like 60,000 tonnes of canola grown in Canada that's non-GMO. And I said—well you know, 60,000 tonnes is a way more than what we want to produce.

So on the one hand, he was saying it's kind of trivial because it's eight million tonnes produced and there's only 60,000 tonnes that are non-GMO.

But from the Island here, 60,000 tonnes is more than we need so I think it's really important to figure out and then look at the big players. I think it's interesting that the Australian model, they're shipping into Japan as well.

I think it's important for us and one of the reasons why we looked at this is we have been shipping traditionally, I agree with you 100 per cent into the United States and Canada and with original labeling and so on. But we haven't been getting very big premiums for a lot of our commodities. That's why Australia is looking at us. They're wanting to hang on to their premiums that they're getting for being non-GMO and I think as an Island here, we might be able to—because we're an Island, we can use that to capitalize on the possibilities of actually getting a premium.

More so, let the rest of North America be just GMO, no problem. But maybe we can be, do something like what they're doing in Australia and that's why we think you should be looking at how they're legislating, how they're regulating and how they're doing it there. Do some kind of a literature review.

Wilbur MacDonald (PC) (Chair): Any more questions? Robert.

Honourable Robert Ghiz (L): Thank you. You know, we've heard many presentations from Health Canada. I remember we had one here from Sobeys or Superstore. You're indicating today that the world is moving towards GM crops in certain areas of the world. You know, the US isn't moving towards a ban. I don't think if we ban it here on Prince Edward Island, it doesn't mean we're not going to go to the Sobeys or Superstore and still buy products that have GM crops.

Now you mentioned the biotech industry. You mentioned, we know that farmers that have already invested heavily in GM crops. You mentioned that we'll need government regulations. You mentioned that markets around the world, they're there whether or not they'll pay a premium is still a little bit up in the air. It looks like they might right now. I'm wondering on your best estimation, is it economically viable for Prince Edward Island to move to being GMO-free?

Raymond Loo: I think this report will show that there's definitely markets. I don't think there's any

questions about that. I guess it would have to be up to 20 years time we'll look back and decide whether it was a good idea or not. But I see it certainly as opportunity and for a number of reasons, not the least of which is that we are an Island so we got to somehow start using that Island to help us. It's not going to be - if it's legislated, you know legislative ban I think, you know we're right, I don't propose to take food off shelves.

I think it's really important to differentiate between medicine and food production. I think it's going to be when you say economically viable, it's probably as this report shows, much more economically viable for some crops than others so I don't know that I can say—just ban it, it's going to be—as Pete Langdon said with the North Shore Adventures, he brings tours in here. He couldn't give a dollar value how much extra it would be worth to have PEI GMO-free. But what he does say is that anytime you have something different than anybody else has, it can be a saleable item. So it's really hard to quantify exactly and that's when we started off with the very, probably second slide or something, it's hard to come up with an absolute dollar value. But one of the things we would be doing here would be preserving the possibility for the future as well. So certainly with crops like canola and so on, soybeans and corn they don't survive the winter so if we decide that in five years time we got a huge opportunity and we want to make the whole Island GMO-free for soybeans. Basically, it's cleaning the bins and cleaning out the combines. It would be a big nuisance.

Honourable Robert Ghiz (L): What is the crop that would, if we were growing GM's, would we not be able to turn back the clock?

Raymond Loo: Canola, for one because canola survives the winter, you see and the seeds will survive in the hedgerows and once it gets in—I mean the farmer can probably still control the canola that's in the field but it's going to be split along the ditches and so on and what happens then, it spreads into the fields and you lose that ability and that's what the farmers in Australia are by far the most worried about is canola and that's why we're proposing that there's some kind of—limit the planting of the genetically modified crops that will overwinter and will spread by pollen and spread easily because they are the ones that

are going to limit our future.

Ronald MacKinley (L): How many acres of canola are grown on PEI?

Raymond Loo: I'm not exactly sure. Gerard Mol is doing the harvesting. There might be 600. There's not a lot right now and we're physically still able to control what—and we know where all the fields were so it would be still possible. Given time, canola seed, if you have a hole the size of the end of your pin, it's going to run out of a truck. It's really hard to transport completely without having the leaking and so on. It's an oilseed so it will survive for years in the soil just like any farmer who's been controlling mustard. It's the same family. You know what I'm talking about, Ron. You think you have every field clean and you plow it up five years later and the frigging mustard's coming there again.

Wilbur MacDonald (PC) (Chair): Will genetically modified canola destroy the organic industry in PEI?

Raymond Loo: I mean, right now there's no organic growers growing canola. I mean it would mean down the road that we wouldn't be able to grow canola and sell it as organic. I don't see it, I don't see the organic industry getting wiped out because of genetically modified canola growing in the area. It will be just another weed I have to cultivate out the same as every other one. It will mean that I won't be able to grow that crop.

Wilbur MacDonald (PC) (Chair): You'd be able to control it enough that you could still be organic?

Raymond Loo: Yes, I mean it would be a weed that I have to root out with cultivation probably. It still dies with cultivation as easy as any other weed does with cultivation. It's basically that it can't be in anything that we're shipping. We can't have, we're not allowed to have any GMO product. But I mean as far as it goes right now, there's nobody growing genetically modified free canola, no organic grower. That's not to say that there won't be somebody next year but right now there isn't and so I can't say that it's going to wipe out that particular sector in industry.

Ronald MacKinley (L): Do you ever have to weed that out now in your crops?

Raymond Loo: It's not growing around me close enough to be a problem. I mean, I have to look after mustard.

Honourable Philip Brown (PC): You got to weed mustard.

Raymond Loo: Oh well, it's one of them everybody has to worry about. But again, I can kill it. It's not a—for us, basically if PEI was GMO-free, if we could put it on our label, if we were selling into—it's an extra assurance. It's an extra selling feature for us and I don't say, when I say for us, I don't mean just organic farming. I mean, Robert MacDonald is doing genetically modified free soybean and selling them into Japan. He's doing it as a specific market and he's making a premium for doing it and he's a conventional farmer who's, you know, it's not just an organic thing here.

Wilbur MacDonald (PC) (Chair): Wayne.

Wayne Collins (PC): Yes, and I wonder how much further that could be extended in terms of growing soybeans for the Japanese market? I mean it is a faraway market and traditionally, our markets have been North American, right? Without there being more, better labeling, mandatory labeling in the United States and Canada, I see that as key if you're going to promote and develop a non-GMO product. People have to know what they're looking at in the marketplace. So without that labeling, I think it's almost it would be a very difficult cause and you raised an interesting point earlier on when you talked about—even if we went GMO-free, enforcement would be required and if it is an act of the provincial government to declare PEI GMO-free, then it's the provincial government is going to have to enforce that situation and I just wonder how that could even be accomplished.

Where there seems to be growth in your presentation is in terms of organic product because the connotation there, if it's organic, it's non-GM. To that end, I want to know how much growth have we experienced on Prince Edward Island and indeed nationally in organic agriculture? I mean in the face of this increase in GM products in North America, is organic agriculture itself increasing?

Raymond Loo: Very much so. There's a couple of questions there. One is having said that we

don't have GM labeling right now. We do have natural labeling and natural products are growing very, very, very rapidly in the United States along with organic products. So we can produce a non-GMO product and sell it to a natural and that's what I was talking about Tyson so there is big markets, I think, for non-GMO products.

As far as enforcing it, that's why we think you should be looking at a review of current legislation that exists in other areas and see what they're doing around the world and see how it's being done. We don't necessarily have to reinvent the wheel here, we got to figure out how they're doing it. What we would really want to do is see preserving the possibility of people growing non-GMO products and in some cases, that might mean an outright ban of certain crops and in other cases, it might not. I'm not sure.

As far as the farmers go, we've gone from about 30 farmers four years ago, I think four years ago there was around 28 to about 45 now on PEI organic certified so it's growing quite quickly here.

Wayne Collins (PC): Is that the same picture across Canada as well?

Raymond Loo: Yes, it's growing very rapidly. In Saskatchewan, there's more than a million acres of organic production so it's not a small thing in Saskatchewan and the vast majority of their production is going to Europe so it's not going to the United States.

Wayne Collins (PC): In spite of the growth of GM products?

Raymond Loo: Yes, although, now the Saskatchewan farmers have a class action suit against Monsanto because they can't grow canola anymore and they were growing canola. And organic canola is a very—it's an interesting thing. I was at a potato chip plant in Toronto that produces organic potato chips and they had 45-gallon drums of canola oil, certified organic from a product of Switzerland. So here they're importing and here is Canada, the largest producer of canola oil in the world importing oil from Switzerland because they could not find genetically modified free organic canola oil in Canada. So there's a market right there for PEI. So when I say right now we don't have a canola oil producer, I'm not, we might very well have a canola oil producer very

quickly if we could have an extrusion plant going on PEI and so on.

Wayne Collins (PC): You're saying this committee could also entertain the idea of banning a certain species of canola?

Raymond Loo: I think that what I would propose that you would—and ban is probably a pretty strong word. When you say ban, it's going to be very difficult to do. Maybe restrict to growth would be a better way of wording it. I put in place the—when I say that, I personally would love to see PEI GMO-free. I've said that for years and years and years. Today I'm presenting a report from a whole bunch of different people and what we're really wanting is the regulations to be—I don't know if regulations is the right word—we want the conditions to be provided for us that will allow us to grow non-GMO products and we would hope you guys can look around the world and find out what countries are doing, whether it be regulation, whether it be legislation, whether it be zones, whatever it takes to be able to allow us to capitalize our markets that are growing.

I mean the markets worldwide are growing probably a little bit by default because there's more GM product available and less non-GMO product available. So the price is staying quite high for non-GMO product going into the countries that are wanting it and we don't know what's going to happen after 10 years or even, five or 10 years. You can't predict for—how long can you predict ahead? But at least for the short to mid-term, it looks like it's going to stay quite stable.

Ronald MacKinley (L): So what you're saying, Raymond, is soybeans ready, soybeans are alright because they're not going to jump over the fence?

Raymond Loo: I don't want to say they're alright but. . .

Ronald MacKinley (L): No, but they're not going to cross. . .

Raymond Loo: They're not the crop that is. . .

Ronald MacKinley (L): And corn, as you said, is not going to reproduce and it's not going to jump over the fence. The one you're worried about is canola.

Raymond Loo: The biggest one as far as the future goes, where we would see that we need to start very quickly is canola. Corn, I mean I will say that corn is—as an organic farmer, if I have BT corn growing with 600 metres of my place, I can't grow sweet corn so it does jump the fence and it is—but it is I guess what I'm saying is that it will be easier. We have more time limit. If we decide to go GMO-free, we have more time to go GMO-free in corn and soybeans because they're easier to get rid of. Canola, you can't get rid of once it's growing in the hedgerows. I mean it's pretty hard to get rid of. I don't know, you could physically put people in the field year after year to pull them out but it's going to be pretty expensive.

Ronald MacKinley (L): Something like wild oats.

Raymond Loo: The same idea, yes.

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

Honourable Philip Brown (PC): Yes quickly, Raymond, just wondering where it all fits. In Europe, do they—our retailers don't allow you to advertise non-GMO and I found like natural, although you talk about Tyson's and others, it's—I don't know. . .

Raymond Loo: Natural is pretty vague.

Honourable Philip Brown (PC): I was going to say.

Raymond Loo: Organic is much more tighter, yeah.

Honourable Philip Brown (PC): It's quite a term and the same as local.

Raymond Loo: Yes, local.

Honourable Philip Brown (PC): And as a producer I found that—and the other, like right now we say the big drive on labeling is 100 per cent no trans fats. That seems to be the current buzz word. That's the one that—so if we got into, we've heard presentations and people talk about this labeling, we don't have mandatory labeling, would your suggestion be that retailers have mandatory labeling if there is GMOs or the ability to label GMO-free?

Raymond Loo: I mean I would like both. Certainly the ability to label GMO-free would be great. That would help us immensely. You know, being able to market our product and of course, we'd like to see it wider than just on PEI and I know you guys can only do PEI. Just to give you a quick thing of what happens in Europe, do you remember a few years ago, probably six or seven years ago, there was shopping carts of Toblerone bars all over the place for sale, cheap at Christmastime. Gee, they were cheap. Great big, wonderful Swiss chocolate Toblerone bars.

The reason they were for sale cheap in Canada was because there were some genetically modified soybean in them and they weren't allowed to sell them in Switzerland. They didn't know that until they had them made and then they had to dump them on the North American market cheap because we don't have labeling and we don't have any laws against it so boom - we had a pile of cheap Toblerone bars for one year. I didn't know why they were so cheap and I found out when I was in Switzerland. So anyway, it's interesting how sometimes things happen.

As far as labeling goes, without labeling I think it's going to be difficult to get a premium for our products unless we market them as something besides GMO-free. If storage would allow us to label as GMO-free, I think we could start building that clientele.

Honourable Philip Brown (PC): Thank you.

Wilbur MacDonald (PC) (Chair): Very good. Thank you, Raymond.

Raymond Loo: I'm going to give you a copy of this report for your bathroom reading this afternoon.

Honourable Philip Brown (PC): A copy of (Indistinct)

Raymond Loo: Yes, absolutely and that's one thing I was going to say, when George Morris comes down to present, I would invite anybody or we'll contact you guys, anybody that's interested in coming into listen or we could even make a presentation to you guys or get them too. They can do a much more in-depth. I'm just a—I'm not a professional presenter so, I'm going home to dig potatoes.

Wilbur MacDonald (PC) (Chair): You did a very good job.

Raymond Loo: Thank you for your time.

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

Cletus Dunn (PC): Are you done digging?

Raymond Loo: No, I'm not done digging. I'm going to go home and try and get done digging before. . .

Wilbur MacDonald (PC) (Chair): We're going to adjourn, I guess until 1:30 okay for the New Democratic Party. Yes, we may go in.

Jim Bagnall (PC): Could I make a motion to move In Camera for a few minutes?

Wilbur MacDonald (PC) (Chair): Okay. Secunder?

Honourable Philip Brown (PC): Second it.

Wilbur MacDonald (PC) (Chair): Okay, all those in favour of that motion? AYE - We'll wait until they clear the room. [In Camera Session]

1:30 p.m.

Part V - Island New Democrats: James Rodd

Wilbur MacDonald(PC) Chair: Well, ladies and gentlemen and members, we've reconvened this afternoon and our first presenter is the Island New Democrat Party represented by James Rodd. James if you'd like to come up to the front there. We have James down for half an hour. Is that going to be suitable, James?

James Rodd: I'll take any time I can get.

Wilbur MacDonald(PC) Chair: I know. (Laughter)

Honourable Philip Brown (PC): I know but we asked if you'd settle for half an hour.

James Rodd: It'll be fine, Mr. Chairman. Well, Mr. Chairman, thank you very much for giving us the opportunity here this afternoon. There was another time not so long ago on a more sombre occasion that I had Liberals to my left and

Conservatives to my right and I was in the middle and I feel I'm at least still in the middle here and I'm looking at each and every one of you eye to eye.

Jim Bagnall (PC): But we've got Conservatives on the right and Conservatives on the left today.

James Rodd: Well, that depends on, I guess, what the perspective here. (Laughter)

Wilbur MacDonald(PC) Chair: Well, we expect Robert here any minute. I think Ron has left for the day.

James Rodd: Mr. Chairman, the PEI New Democratic Party appreciates this opportunity to address the Prince Edward Island Legislative Standing Committee on Agriculture, Forestry and Environment concerning genetically modified organisms in agriculture.

We have requested this audience for two reasons. First, as private citizens. Our party is compelled to express strongly that we concur with the many well researched positions against GMO agriculture that a wide variety of community based people have presented to you. Secondly, as a political party we have some serious concerns about the political processes at work in this committee.

Section 2 - The PEI New Democratic Agriculture Strategy: Up front the PEI New Democratic Party has a comprehensive, transparent, practical, updated and democratically developed policy on agriculture. Every political party in Prince Edward Island should be expected to have such a policy and to give it central position in all their deliberations. The PEI NDP stand on making PEI a GMO free zone is based on the party's agricultural strategy. The primary objective of the NDP agricultural strategy is to promote food production methods and techniques which are essential to healthy food production and environmental sustainability. The primary goal of all agricultural policy will therefore be to assist in the transformation of the food production system in Prince Edward Island into sustainable agriculture. The agricultural policy which the NDP offers is based on a different vision of PEI agriculture from that vision that is currently in force.

One of the PEI NDP principles to guide its

agricultural policy is the following: Consumers have the right to healthy food produced in a way that does not negatively impact the health of people or the environment. Consumers have a right to know what they are eating as well as how the food they eat was produced.

The specific NDP policy about GMOs states: Growing genetically engineered crops is incompatible with the objective of promoting organic food production. It threatens organic certification status, lucrative markets, is unnecessary and must be prohibited.

Section 3 - PEI's New Democratic Support for Many Citizen Positions: This Legislative Assembly's standing committee has heard many individuals and groups speaking on behalf of a wide range of Island people supporting PEI becoming a GMO-free zone. The PEI NDP does not need to repeat all of their extensive research and wisdom. Rather we will highlight and emphasize a few of the positions which are especially important to us and to the well-being of our communities. Some of these are food safety, the precautionary principle, government's power to control biotech companies.

Section 3.1 - Food Safety: Many of the GMO promoters insist that food safety is not compromised by GMO production. We repeat here what we said in our brief to the BSE crisis in March of 2004. On February 17th, 2004 the Globe and Mail reported that a load of genetically modified pigs in the Quebec City area were destroyed by incineration. However, these pigs were rendered instead and then sent to a number of feed mills in Quebec and in Ontario for use as chicken feed. The Canadian Food Inspection Agency, it was reported, had to move fast to recall this product. By the way, the NDP asks since when have GMO pigs been in the Canadian production system experimentally or otherwise? It seems, Mr. Chairman, from this story that the public agency in Canada responsible for food safety has some serious concerns about the safety of GMO products.

Besides the CFIA reaction regarding GMO safety we have the testimony of an Island acupuncturist to this committee. He draws on thousands of years of Chinese medicine experience to tell us that generations of testing are required before substantive changes should be made in the food

production technology. He says and I quote, "Simply put, we need to monitor reproductive health, neurological health, congenital illness, immune robustness in several successive generations of test animals fed on GMO food. Only when we do this will we be able to make informed decisions about growing GMO foods. Until such time as this we are operating in a complete information vacuum". That was David Shulman, February 16th, to this committee.

Section 3.2 - Precautionary Principles: The PEI NDP adds its voice to those who advocate the precautionary principle. This principle is not strange in Prince Edward Island. It is already being used as a strategy to protect the Island's seed potato industry. The precautionary principle in the case of GMO means that if the tests have not been done or have been shoddily done then the use of GMO technology for food production must be banned. It means that GMO food must be tested and proven safe. This is opposite to the "let's see what happens" philosophy. It goes without saying that we do not have total scientific evidence that GMO foods are unsafe. What we would need before accepting the technology is to prove that GMO production does not cause damage to humans, to wildlife or to the environment. We are often reminded of the days when chemical companies, their allies and government regulatory bodies declared DDT to be safe. Need we say more.

The following is a powerful statement of an individual Islander who encourages citizen involvement in demanding caution - In the 21st century new technologies are outstripping society's ability to fully review their safety and enact legislation to curb their excesses. In view of this time gap I urge citizens to insist their governments err on the side of caution rather than granting uncontrolled license to corporations - Daphne Davy, Citizen's Hearings on Food Issues, October 16, 2004.

David Suzuki, a well known geneticist, environmentalist and social justice promoter questions the fast track science he is witnessing in relation to GMOs. He goes so far as to call it "shoddy" science. He points out that real science progresses by proving many hypothesis wrong over and over again. Instead, in a rush to respond to corporation's desire to commercialize the technology, many pro-GMO scientists are

prematurely claiming their hypothesis to be true. This is bad science. I quote, "It grieves me as a geneticist to have to say that I am appalled at the way my fellow scientists have rushed to proclaim the enormous economic promise of genetic engineering with almost no serious discussion about the alternatives or enormous potential cost. I am a critic, not of genetics, but of my fellow scientists and the way that they have been blinded by the hype and the enormous promise of money". That was Dr. David Suzuki at the National Farmer's Union Convention, November 19th, 2004.

Section 3.3 - Government's Power to Control Biotech Companies: Government's that allow biotech companies to influence public policy often cry powerlessness when they are confronted. However, we have many examples of governments which claim their independence from the corporate sector's demands by taking a stand against GMO technology. Some of these governments may do this merely for the economic advantage that a GMO ban affords them. Others do it for a principled position based on the protection of the people and the promotion of national sustainable agricultural goals.

The European Union can be held up as a model of economically based GMO bans. They must have had to deal with the ordinary badgering and threats which have become the common strategy of the biotech companies. But they held firm and seemed to be prospering. Even in Britain it was announced in the *Guardian Weekly*, October 23rd to the 29th, 2003 no wonder Monsanto is leaving Britain just a day after the US company closed its European cereal business. The government's field trials into GM technology found that Monsanto's genetically modified sugar beet product leaves fields with fewer butterflies and bees. They also found that GM spring rape this time sold by another multinational, Bayer, reduced wildlife and wild vegetation where it grows.

Tony Blair maintains this, what I will call a strange love affair with the United States, this economic and social model. In Britain however there is widespread public testing of GMOs. This is not the case in Canada. As the result of the British experiments come out that country is being forced closer and closer to the economic unions position on GMO foods.

Zambia is a shining model for the world of a

country with principled policies. In spite of their need for food supplies of every kind from wherever they can get it they have opted to be a GMO free nation. In the *Grain Magazine*, October 2002 we read - a portion of the 500,000 tonnes of American grain intended to feed 13 million people in Southern Africa under the threat of famine has been refused by the Zambian government who will not accept food aid from GMO crops. The World Food Program has had to ask its NGOs to stop all food distribution in Zambia. If Zambia, a country under great economic stress can make this stand, why couldn't we, with all our resources, create a GMO free PEI for this generation and for the future? In PEI we have the capacity to ban GMO production of food. What is lacking, Mr. Chairman, is political will.

Section 4 - Legislative Assembly Standing Committee's Responsibility for Democratic process: The PEI New Democratic Party is concerned about the effectiveness of the outcomes of the lengthy and costly hearings of this GMO issue. The response to your invitations for submissions was phenomenal. You have heard from representatives of the Monsanto line of thought. The majority of these are paid spokesmen or staff people of various organizations which represent the interests of biotech industries. We are worried about these people, excuse me, we are not worried about these people because they have access to a wide range of forums to get their points across. Our concern is for the citizens and community based organizations who present an alternative point of view.

Many of the citizens and community based organizations you heard from have done amazing tasks of serious research on GMOs without any economic resources. The PEI NDP says to you in the strongest possible terms - the citizens of Prince Edward Island and the community based organizations must see that these hearings make a difference. We are conscious that there is a level of cynicism about politics and politicians in our community. We do not need another occasion for people to say-why do governments ask for our input and then just go on their old patterns of satisfying the demands of the industrial sector. Our voice does not matter. Like it or not we are living in a moment of our history of fragile democracy. Fortunately citizens are now enlightened enough to know that democracy is

more than just going to vote at election day. People expect to have real influence on public policy every time a Legislative Assembly standing committee is formed and requests input the message to citizens is that their voice is important and will have some influence. Citizens are demanding their voice. They are also demanding effective representation.

The PEI NDP has been present at many of the sessions on GMOs. We want to offer some observations. First of all, on the positive side, your committee received the presenters with respect and courtesy regardless of who or what they represented. You managed to create an environment in which people felt at ease and thank you for that.

While the committee always listened with respect to the presentations a number of people have commented to us that the Liberal-Conservative one upmanship which characterises Question Period in the Legislature was too often played out during these hearings. When people come to talk to a fact finding committee about a life altering issue they do not want to be spectators at the party-sparing game. Sometimes it was so childish that it was embarrassing. Worst than that the banter often tended to trivialise the seriousness of the topic and the efforts of the presenters to bring forward their perspectives.

We think that you may have missed important opportunities in the dialogue with presenters as a result. When scientists and lawyers come forward it is important to ask technical questions. In fact it is urgent that you cross examine them on the sources of their facts. For example - who paid for the study you are citing. You should not however expect full scientific analysis from ordinary citizens. If such a person or group backs up arguments with science you need, of course, to check out the sources. However if you take the GMO issue or any other similar issue as a scientific issue alone you will miss the most valuable thing that the community has to offer, which is the wisdom which comes only from a combination of science, cultural and lived experience. If you ask a community based person technical questions about policy development or international trade implications you will get some excellent input.

However, most of us know that governments have well paid people whose job it is to work out the

details of policy. For example, one group presented to you the concerns gathered from over 100 people all across the Island and rather than delve into and understand the meaning of their findings your committee missed an opportunity by concentrating on the complexity of labelling, the problems of getting markets for non-GMO food and how to deal with farmers already caught up in GMO crops. It seems to us that your standing committee, which should to the last person be unprejudiced, revealed a number of disturbing biases. Some people have actually told us that the committee is showing itself to be pro-GMO technology and seemed to be more at home with the industrial sector view than with the alternative anti-GMO position.

We have reviewed reports from some of the sessions and detect that the tone and content of the questions to presenters varied according to where the presenters were on the pro and anti spectrum. There seemed to be a more confrontational approach to those who propose a GMO free agriculture for PEI. Most people realize that governments are conscious that more dollars may come from alliances with Monsanto than from community groups. However, ordinary citizens expect governments to give priority to representing them and their interests rather than yielding unquestioningly to the demands of giant transnational corporations.

Conclusion - the PEI New Democratic Party looks forward with hope to the report of this Legislative Assembly's Standing Committee on Agriculture, Forestry and Environment. We are expecting courageous, citizen driven proposals to make Prince Edward Island a GMO free zone. And in the final words - Wendell Berry, philosopher and writer - we have an obligation to give hope to the younger generations. Thank you, Mr. Chairman, for your time.

Wilbur MacDonald(PC) Chair: Thank you James. Do we have any questions from the members? Philip.

Honourable Philip Brown (PC): Thank you for your presentation. Mr. Rodd, I'd have to say that I always find and presenters always feel this way, that because you come from a point of view that your point of view -and it's not just this committee, it's many committees - that your point of view if somehow marginalised in the minds of the

committee members. And so you read over the transcripts and then you say, well that fellow was on such and such a side. We don't go into this, being on side of one position or the other. That's why we set up a committee.

The other thing is that we don't, as government and opposition and as legislators, we have to put our party policies aside to hear the public and to hear their positions and that's what we're doing. I know sometimes the people interpret it as that's the party policy. But in my own case I represent 3,000 people, not just the members of my particular party in District 23 and we strive, and I know my colleagues strive hard, to do that. The challenge we find ourselves in particular issue when it was dealt with by presenters this morning as almost a polarization of viewpoint. There are those who are pro and there are those who are con and there's not a lot of middle ground. And so I accept your observation that it appears that committee members are on one side or the other. I don't agree with it but I accept it as your observation.

Wilbur MacDonald(PC) Chair: David.

Dr. David McKenna (PC): Yes, very good presentation there, James. I must admit I haven't been involved in all these presentations. I'm filling in this afternoon for one of my colleagues. But I do come from a scientific background too but with science you have to look at all the different sides of everything. I was just curious under cautionary principle, you indicated that if tests are done or shoddily done - how do you prove they're shoddily done, I guess? How do you interpret they're shoddily done, the tests are shoddily done? I'm just curious about how you came up with that word, I guess.

James Rodd: Well, I suspect, Mr. Chairman, that in areas of protocol there are elements of protocol that are required and if they don't meet the protocol standards then they would be considered to be shoddily done. Not so long ago a scientific approach to determining a virus in potatoes on Prince Edward Island was considered to be the best in the world on PVYN. I would maintain, Sir, that it was shoddily done in many, many areas. The protocol was not there for the results that farmers, economies and the environment needed. That is a very good example of a shoddily done protocol. So the protocol for making something

safe has to be more than just a private company doing the research.

Dr. David McKenna (PC): Would this necessarily be a scientific paper that was written up in a journal or something like that that you would see. I mean, it has to pass a pretty rigorous protocol to be written up in a scientific journal. I wouldn't go by anything unless it was written up in a journal I guess. That's my interpretation of science, I guess. I don't know, I mean usually they're referred very well and they've got a lot of experts in the area looking at the article before it ever gets published. So I assume this would be done properly before it gets there.

James Rodd: Yes. Well, that would be the assumption that it would be done properly. But there are regulators to the protocol and it would be up to them to determine the shoddiness.

Wilbur MacDonald(PC) Chair: Maybe I could ask you, James, in your research who makes up protocols? Is that the scientific community or is that - I wouldn't think it would be government would it? In the case of Health Canada who would make up the protocol?

James Rodd: Oh, Health Canada, you're entering a question into a field in which I don't have expertise.

Wilbur MacDonald(PC) Chair: What about CFIA then?

James Rodd: Well, CFIA would be the same. I'm just a farmer, Mr. MacDonald.

Wilbur MacDonald(PC) Chair: I know. We all are just what we are.

James Rodd: But you have more capacity to answer that question than I have. You have more resources to delve into that. I do think though that CFIA depends on scientific approach as does Health Canada and they're under scrutiny and I guess in the end the Prime Minister and the Cabinet are the final scrutineers along with the people. That's a question I believe you'll have to ask someone a lot more knowledgeable than myself.

Wilbur MacDonald(PC) Chair: Very good.

Anybody else got any questions? If not, thank you very much. Okay, Wayne.

Wayne Collins (PC): Just want to make one comment. Thank you very much for your presentation, James. But I do take some exception to your interpretation of how well the committee has performed to this point because I've attended every one of the sessions and besides the chairman I'm probably the only one at the table who can say that. And I've listened to every presentation that came forward. And to try to think that scientists and industry representatives are giving us a pro GM thing and we're taking it all and swallowing it down and others, say from the community, are giving us another anti-GMO spin and we're being far more critical of them in some way, I think that's a misinterpretation.

On the side of industry, yes, we have had CropLife here and we know who they represent. But at the same time on the other side of the industry we've had the PEI Potato Board in here as well and we've had people from the Prince Edward Island community who have expressed pro GM feelings—some of them individuals farmers who come here. And on the side of the scientists, you know, we've had people like Robert Coffin, who does support the GMO stance. Yet we've also listened to scientists, and I'm trying to remember the gentlemen's name, Bert Christie, as well. So we really have seen conflicting viewpoints from both science, industry and the general community. So I don't think you can parcel it out and say just because they're on one side of the coin they feel that way.

I began these hearings with a very open mind. And it continues to be open. And I find that each session has been a revelation, it's been an opportunity to learn, it's been extremely educational to this point. And what this committee is ultimately going to decide at this juncture I have no idea. We have certainly heard a great deal, probably unprecedented the response, that this topic has generated. So I do want you to feel assured that this committee is listening and listening to all sides of the argument. And what we will come up with remains to be seen. I assure you it is probably going to be one of the most thoughtful deliberations that I have had the experience of being involved with in the standing committees in the two years that I've been privileged to be in the Legislature. So I'm looking

forward to it. I think it is really going to be a turning point, if you will, in Prince Edward Island's agriculture life and we can expand it even beyond agriculture as you say quite rightly so. There's a cultural side to this as well.

So I do thank you for your presentation. Please rest assured this committee is listening.

James Rodd: May I respond?

Wilbur MacDonald(PC) Chair: Sure.

James Rodd: Well, I certainly appreciate your comments, Wayne. I also would like to say that I'm glad to see that you're listening. I've read the Hansard on the presentations to date. I've read the many questions that you've asked and many of them were logical and to the point. But there were many other questions of shenanigans that was going on here and I encourage you to read the Hansard because it's word for word, it also says verbatim right at the front, especially the questioning of Denise Dewar with CropLife sciences and the questioning prior to her and the questioning of the organizations that presented afterwards. They were community based organizations. They did extensive research but the questioning got them off on different tangents which really had no relevance to this committee in a large measure—labelling for example is a concern. That's a food ingredient but food ingredients and the labelling and traceability and so on but that's not your jurisdiction, it's a federal jurisdiction. It's under Agriculture Canada, CFIA's jurisdiction. You may make a presentation to them in support of labelling but you don't have anything to do with labelling as a municipality, as a government.

I'm glad to see, Mr. Collins, that you are, that the jury's out on this, that it's going to take some deliberation. But I would hope that you would err on the side of caution, that you would err on the precautionary principal. There are three, four people that aren't here today. Their positions as people who work with the industry, the chemical companies, the seed companies, they're working with that sector at all times. I'm hoping that you're not speaking for them today. You're speaking for yourself and that's where I'm taking it. We have one member, Eva Rodgerson, who seconded the motion to get this to Legislative committee, who publically stated in the Legislative Assembly that

she was for GMOs. It's on the record. You know you can't not say that there's not bias thoughts within the group. All I'm saying is I'm giving the benefit of the doubt, Mr. Chairman, that this committee will see and will err on the side of caution and make us a GMO free zone that will open doors and you fellows have the responsibility of finding those doors as well.

Honourable Philip Brown (PC): Just in defence of my good friend, Eva Rodgerson, I just want to and because she did work with producers who were working on the NatureMark potato, as you know, before she became a legislator she worked very closely with producers in O'Leary but I'd just like - so she had some knowledge of it and I know that she seconded the motion, did that make her an unfit juror in this as a member of this committee? Because you have a previous, you have a stated position, if you were a member of the Assembly you would carry that position into the Assembly, would that make you unfit then to sit on any Legislative Committee?

James Rodd: I don't know if I'm in a position, Mr. Chairman, to determine if she's unfit.

Honourable Philip Brown (PC): No, but you did question whether or not she brought a bias into hearing from people. I know Ms. Rodgerson and she's a very, very fine individual.

James Rodd: Well, she's not here to defend or either question me as well. I do believe that for the public record she has stated that she is for GMOs and if she were here today I'd ask her if her position has changed and would she state it.

Wilbur MacDonald(PC) Chair: I think we'll call it there. Eva, unfortunately had to be in Prince County for another affair today. Thank you very much, James. You're quite straight forward and we appreciate that.

James Rodd: Okay, thanks you very much.

Part VI - Earth Circle Group: Sister Bethany Doyle

Wilbur MacDonald(PC) Chair: And the next group is the Earth Circle Group. Bethany Doyle, I guess Sister Bethany Doyle is representing them and if you have other people you want to come up front we can move some chairs around.

Sister Bethany Doyle: That's fine. My name is Bethany Doyle and I am a member of the Congregation of the Sisters of Saint Martha of Prince Edward Island. For the past 17 years I've been part of a committee of Martha Sisters and Associates who've been working with The Spirituality of the Earth. The activity of our committee includes intensive study, the promotion of public education - mainly by sponsoring lectures in various aspects of Earth Spirituality- and advocacy on behalf of the earth by making presentations like the one here today.

On behalf of the congregation, all 77 of us, and on behalf of the Martha Earth Circle, the 12 of us, I want to begin by expressing my thanks to you for this opportunity. We are very grateful that you're holding these hearings. We believe that in the holding of them on the issue of biotechnology you're demonstrating your vision and your care and that is very hopeful to us. We're very appreciative for the opportunity to speak to you today and to present to you first our perspective, secondly our interests and finally our recommendations concerning biotechnology.

So to begin with our perspective, the background, the lens that we use - and we didn't know that Dr. McKenna was going to be here - but the lens that we use in looking at the question of genetically engineered agriculture is spirituality. We place this question in the larger context of the relationship between the human community and the whole earth community. For the past 17 years our committee has been deeply concerned with the ways that we humans have been irrevocably altering the planet. Some of the changes we're made have been very creative and helpful. Most, however, have been destructive beyond imagination. We are particularly concerned with the changes made in the last century.

Over this time our power over the earth has increased dramatically. We now have the capacity to break mountains apart, to drain rivers, to flood valleys. We can turn the most luxuriant of forests into throwaway paper products. We can pour toxic chemicals into the soil and pesticides onto the fields until the soil is dead and blows away in the wind. As outrageous as it may sound we are now capable of putting rat and human genes into trout; spider genes into goats; human genes into corn or rice; mouse and human genes into potatoes; fish

genes into tomatoes and cow genes into salmon.

Our committee has wondered why so much of what we as a human species have considered to be progress, why so much of that has ended up in devastation, severely damaging our air, our water, our soil, our basic life-support systems. In the name of progress we cut entire forests thereby inviting fog and floods and doing irreparable damage to wildlife. We practice extensive monoculture agriculture, thereby inviting pest infestations on a massive scale. We pour chemicals onto the land killing the soil and inviting erosion. Leading scientists around the world see signs that our planet is close to being exhausted. Here on PEI we have evidence of the same heart-rending destruction - the killing of fish; the drugging and exhaustion of our soil; the degradation of woodlands and a rate of asthma that is among the highest in North America.

Looking at this from a spiritual perspective we imagine an underlying understanding of the world that looks like this (shows illustration). In this model our understanding of how humans fit into the whole scheme of things is pictured as a pyramid that's organized in many separate, very separate levels. Using this model the human species believes that the earth is intended to be "there for our use". We make decisions according to what we think will benefit ourselves without much real regard for how much these decisions might affect the air, the soil, the water, the seeds themselves or how the degradation of our life-support systems will affect generations to come in terms of health, economy and spirituality.

As an Earth Circle Committee, our study and reflection has led us to a very different understanding of our relationship with the earth and it looks like this circle which is expanding in time and complexity and in this picture all of creation is one community and we humans are one species among many and our well-being depends on the well-being of the natural world around us. This is a very different model. Using this model, well the old understanding, we kind of saw ourselves as apart from the rest of creation. You know, even the word environment says what's around us, you know. The word environ is surround so we figure that we're there and then the rest of the earth is somehow separate. There's really no such thing as a living organism that's separate. There's no living organism in the

world that's separate. It's all part of an ecological community and we're just part of that.

So using this model here on PEI we would see ourselves as one single interconnected community with fields and rivers and hills and sunshine and rain and grass and trees and all living creatures. We would sense that in some way we are all needed by one another, the winged, the finned, the four-legged, the two-legged, the no legged. We would see that in a very real way our health, our economy and our spirituality depends on the vibrancy of this community.

This is a very different understanding of what it means to be human in the world. And our work as a committee has been to grapple with the enormous challenge of coming to this new sense of creation and moving away from the pyramid kind of idea to this kind of an idea. In this understanding we are, not only as the human family, one community but the whole of creation is one community. And so the human can't say to the soil or the air or the water - we don't need you.

Just as an aside as I was getting this presentation ready I do have a new computer within the last year. The computer spellcheck didn't recognize the word "sustainability" or "sustainably". It's as though our capacity to change, our capacity to use new technology has far outstripped our maturity and our wisdom. We don't even have the words that we need in the computer at the moment. I'm sure we will within the next few years.

Our Earth Circle Committee believes that if we are to regain the prosperity of earth, pure air, water, soil, we need an understanding of the whole of creation being one community. In fact we believe that this is one of the most urgent needs of our times making this switch because it's so fundamental and it changes the way we look at things and think about things. So it's in the context of this understanding that we were part of a community with creation that we present to you what is most important to us.

There are three things that are really important to us when we think about biotechnology and the first is that we want a way of thinking about progress that includes the whole earth community- our species and all the other species affected. And I'd like to say that this may not be as romantic a notion or idealistic as it might seem since if you

have an exhausted planet you will have an exhausted economy. Secondly, we really want a way of solving agricultural problems that make decisions in the light of what's best for our children's children and generations to come and third, we want a way of farming that ensures the health of the soil and the health of humans

We have a number of things that we most want to avoid, the first of which would be pollution of non-genetically engineered crops by neighbouring genetically engineered crops. We most want to avoid permanent destruction of our seed by genetic engineered contamination. We would like to avoid the loss of markets due to unwanted contamination and we understand that currently in Europe, Europe won't import Canada's canola due to contamination nor will it take our honey because of this threat and so we would like that not to be the case with PEI products.

We would like not to have new food allergens put into our food supply because there's been no long term testing of genetically engineered foods and because humans have never been, have never consumed many of the combinations in genetically engineered foods we have no way to predict if they could cause an allergic reaction and further it might be extremely difficult to find the source of an allergen in a genetically modified food.

The fifth thing we would like to most avoid is models of food production that devastate the land, the water and the air and even threaten the sustainability of the biosphere - the very fragile layer of life around this planet. Sixth, we would like to avoid models of food production that harm human health. We would not want the introduction of foods that have not been proven to be safe by long term studies. It's one that that something might be safe by a short term study. We would really need, want long term studies.

And last of all we would most like to see the, we want to avoid an increase in pesticides and we're quite concerned about the number of tests that indicate that in the long term pesticides and herbicide use can increase with genetically engineered crops. As one example a study by the former head of the agricultural division of the National Academy of Sciences found that farmers who plant Monsanto's genetically engineered soy use two to five times more pesticides than their conventional counterparts. And I also read

another study done in Britain where first few years there was a big decrease in the use of pesticides and then a gradual increase so that at the ninth year the farmers were using twice as much. So this is something we would very much like to avoid.

And to conclude this section on what's important to us and what we most want to avoid is I'd like to quote Albert Schweitzer. He was the person to whom Rachel Carson's book *Silent Spring* was dedicated. And he writes, "We have lost the capacity to foresee and forestall and we will end up destroying the Earth". So what we most want to avoid is having that prediction come true.

We have two recommendations. The first recommendation is that we have a moratorium on genetically engineered crops, joining the growing movement across the world where at least 30, and I have some researchers say as many as 3500 regional groups especially in the European area, have either banned or given a moratorium or proposed a ban of genetically modified crops. This would also be in tune with the British Medical Association who has called for a moratorium on genetically engineered food. And their concern is the common use by genetic engineers of antibiotic resistant marker genes in the process of gene splicing. Now I really don't know what that means but the doctors say that this could weaken the effectiveness of antibiotics in treating serious disease. So if you put the stories about pandemics together with ruining antibiotics it doesn't appear to be a very good idea.

The second recommendation that we would make is that strong support be given to organic farming. We believe that organic farming has the power to repair earth's support systems and build a food system that respects farmers, communities, the land, biodiversity and the wild. It is estimated that organic farming reduced carbon dioxide emissions by as much as, and equivalent of 92 per cent; that every ton of nitrogen fertilizer phased out reduces emissions by the equivalent of five tonnes and small scale organic farms compared to industrial ones are up to ten times more effective and also support more birds, wildlife and fish. Communities buying local farmer's products generate twice as much money for the local economy as supermarkets. And no form of farming produces foods that contains more vitamins, minerals and other nutrients than organic farming. And this

would have enormous implications, financial implications for public health.

This is a decisive moment in the history of PEI. Your decision in this matter will have far-reaching consequences determining the shape of our province and we understand that's it far from an easy decision. We urge you, as you make it, to let your dream be of a earth that is rich in diversity, healthy and strong.

And we would like to close with a scripture quote from the Book of Job, Chapter 12; Verse 8 and it reads:

If you would learn more, ask the cattle, seek information from the birds of the air. The creeping things of earth will give you lessons and the fishes of the sea will tell you all.

Thank you.

Wilbur MacDonald(PC) Chair: Any questions, committee members? Okay, Jim.

Jim Bagnall (PC): In this you had mentioned that on our food that we should have long term studies before anything comes in and approved. What are you talking long term?

Sister Bethany Doyle: I'm not a scientist and I certainly would defer to the previous speaker who talked about generations. When you consider the billions of years that it took us to get, that it took the human family to settle on what's safe to eat - we're talking billions of years - I certainly wouldn't think five or ten years would do it. And I do think that you're talking generations. It's a long process to fiddle around with this, I think. In some ways I think that we're like, as a human community-a whole species, not just here on the Island-but as a human community I think we're something like a toddler that's got matches and it's not hard to strike a match and it actually is kind of fun and it looks good and hey, it's hot and you know. We've got the technology to do some of this stuff and we're way, way behind in the maturity and the wisdom to deal with it. And so I think, you know, on a larger scale that's what I would be thinking.

Wilbur MacDonald(PC) Chair: Philip.

Honourable Philip Brown (PC): Well, and there lies the complexity of what we're dealing with. On

the one hand we're dealing with this as a local issue, as it pertains to PEI. Having spent the majority of my working life in agriculture I know that it didn't pertain just to PEI. The inputs came from off-Island and the produce that I produced had to be exported off-Island. So you're part of a bigger picture. But I do appreciate your comments, and it's a concern I share, in that the tremendous pace of change in the post-war society is outstripping our ability to understand how beneficial that particular change was. Before even a change is wore out there's a new one in front of it that all of a sudden we're embracing and it's not necessarily . . . but we're caught in the cycle and as one presenter put this morning said we seem to be able to, governments, regulatory bodies, seem to be able to get a handle on radio and television because they came in rather progressively in terms of where you see a vehicle like the internet which is a brand new medium, basically unregulated world wide, not just locally but world wide. Individual jurisdictions are somewhat powerless in trying to determine how to regulate these things, how we get a handle on them and then you move to wireless communication. It just goes on and on.

Sister Bethany Doyle: Sure.

Honourable Philip Brown (PC): We are at a time when the market is driving this, if you will, the market forces. It's hard to really step back from it far enough to view what is good or what is beneficial and what is less beneficial. And that's where this particular technology is. There's scarce a presenter that views genetic engineering in the fields of medicine as not something with some potential good. But when you move it into the field of food production there's greater concern. And that's where, it's a hard one to wrestle because, I mean some of the new cancer treating drugs and these other things, they have in their foundation some of this technology or this science and we wouldn't want to deprive people of them.

Sister Bethany Doyle: I don't know how true this is but I did hear someone today say that there's 243 people die every day as a result of prescription drugs that have been . . .

Honourable Philip Brown (PC): Mis-diagnosed or improperly used.

Sister Bethany Doyle: Or possibly just plain

not good, you know, for whatever reason - 243 per day. If you had a plane crash every day with 243 people dying there'd probably be something happen.

Honourable Philip Brown (PC): That's right. Perfect example.

Sister Bethany Doyle: I'm somewhat uneasy about any kind of, you know, very strong technological changes that haven't been well, well, well received.

Wilbur MacDonald(PC) Chair: Well, thank you very much and we certainly appreciate you taking the time to come in and you were very straightforward and we always like that.

Sister Bethany Doyle: Thank you.

Part VII - David & Edith Ling

Wilbur MacDonald(PC) Chair: The next presenter will be David Ling. So he's going to have a film.

David Ling: I guess we're doing it as a team, Wilbur.

Wilbur MacDonald(PC) Chair: Who do you have with you?

David Ling: My wife.

Wilbur MacDonald(PC) Chair: I thought it was.

David Ling: First of all we're going to start off with a six minute video of a family in North Dakota who have had experience with Monsanto.

(Video)

Wayne Collins (PC): David, may I ask you a quick question just inspired by that story a little bit? He had 2,000 acres in conventional soy, if I understood right, 1500 acres of GM soybean.

David Ling: Twelve hundred.

Wayne Collins (PC): And was it the following year? What testing was done there to get him in trouble.

David Ling: I understood they grew it in three years in total. They grew the GM beans for three years.

Wayne Collins (PC): For three years in that kind of proportion, 2,000 acres.

David Ling: I'm not sure of the exact acreage now. But the second year I think is when they really got into the trouble, when they found that they had . . .

Wayne Collins (PC): Who tested him? How did that come about?

David Ling: Monsanto. They sent out two officers.

Wayne Collins (PC): And they tested his so-called conventional fields and discovered in their opinion that that was GM seed.

David Ling: As they indicated there what they had set up-aerial maps- and they were in a sugar beet field, for instance, which wasn't their field. Might have been their field but it wasn't what they claimed for acreage. They had a sugar beet field and also in a neighbour's property they were claiming that they had their beans sowed.

So it was Monsanto. They're so powerful once they take a stand for to go one route they're going to go to fight you regardless of how right you are.

Wayne Collins (PC): So Monsanto basically said you held onto the GM seed and planted it the next year.

David Ling: Yes. Grew more acres than what you claimed. So they paid for 1200 acres.

Wayne Collins (PC): He said they did not do that.

David Ling: They didn't do that. They had 1200 acres they bought the seed for.

Wayne Collins (PC): They planted that number of acres that they bought for.

Dr. David McKenna (PC): Would some of that be drift from the neighbouring fields going into other fields?

David Ling: As far as we know soybeans are a lot slower to pollinate, cross-pollinate than would be canola. Canola right now is contaminated in the West quite badly. That's really out of the picture, you know, as far as off-shore markets any more to guarantee GMO free canola. But anyway our presentation, I just thought we'd have this brought up and give you a little experience about some of the other farmers. My wife will present our brief.

Edith Ling: Mr. Chairman, committee members, ladies and gentlemen. Thank you, Mr. Chairman, for the opportunity and the time of the committee to make this presentation on this very important issue of GMOs. By way of introduction I would tell you that David is a fifth generation farmer. We're farming 115 acres of cultivated land in North Winsloe. David has farmed all his life and has never taken a job off the farm.

We started off using some chemical fertilizers and in the late 1960s we started using higher amounts. By the 1970s we started using RoundUp because at that time we thought it was a good thing. In 1981 we started using top-dressing on cereals with excellent results the first year. It realized a yield of 107 bushels of barley per acre. The next year the yield was reduced by 15 per cent and approximately reduced by 10 per cent the following year. But the same rates of fertilizer were applied each year.

In the 1970s we went into hog production and used a six in one crop rotation system growing cereals and potatoes and then seeding out to red clover. RoundUp was used often to control couch grass. However we found that the soil was becoming very light. It was eroding easily from water and wind and the living bacteria in the soil was disappearing. No-till methods did not work either to save the soil and the reason for all this can be attributed to the use of RoundUp and the cropping rotations.

With genetically crops farmers will be using more and more RoundUp to control weeds. There is a misconception that using RoundUp Ready crops will result in less chemical usage. However it has been proven this is not the case. Another concern is that the cross pollination between the genetically modified crops and some weed species can be very serious. These weeds will be out of control as RoundUp and most other sprays will not control

them. Genetically modified canola is cross pollinating with regular canola in Western Canada and the organic growers cannot guarantee a supply of organic canola to meet their markets.

In earlier years we grew a tonne and a half per acre of Century Peas, which is an old variety, when we were using low rates of chemical fertilizers and very limited use of chemical sprays. As time went on, with the higher rates of fertilizer and sprays and RoundUp use, yields became reduced so much that it was not worthwhile growing the crop. After we stopped using chemicals a three acre trial plot of the same peas produced 7800 pounds of clean seed. This shows that once the soil is in good condition yields will increase. If the soil is in good condition a heavy crop of straw can be plowed down and the living bacteria in the soil will digest it totally so that you will not even see any straw the following year. In a wet year the soil in good condition will absorb the water and thus you will not experience serious erosion problems. In a dry time this same soil will act as wick and the plants can draw up the water available in the soil.

We find the soil is much easier worked now. In the late 1970s and early 80s a five shank chisel plow with two inch chisels was a heavy load for a 67 horsepower tractor to pull. Today it is much easier to haul a nine shank chisel plow with 3 ½ inch twisted shovels on it with the same horsepower. It is apparent that the soil is aerated with more life in it. We had a serious problem with wild oats in the early 1980s. However after the soil became in better condition we have not seen wild oats.

We grow two crops on our farm. One pays the expenses and the second crop, which is a cover crop, pays dividends in terms of replenishing and rebuilding the soil thus practically eliminating soil erosion. We are very much opposed to the planting of genetically modified crops in this province as we greatly fear what will happen to the soil base with the increased use of herbicides such as RoundUp to control weeds.

Another issue of great concern is that the seed for these genetically modified crops is controlled by corporations such as Monsanto - corporations who also make the chemicals such as RoundUp. So farmers producing genetically modified crops must buy new seed each year as they are not allowed to

save their own seed. They must pay a royalty to the corporations and use their chemicals to control the weeds in those crops. Can the legislators of Prince Edward Island allow PEI farmers to be backed into such a corner? Even worse in Quebec farmers cannot save their own seed if they wish to purchase crop insurance. This is indeed playing into the system which isn't to the advantage of farmers.

Health of People - To our knowledge there is no independent testing being done to determine the safety of genetically modified food for humans. Instead this testing is being done by none other than the chemical companies themselves and endorsed by Agriculture Canada.

In conclusion the legislators of Prince Edward Island must take a stand and not allow the planting of genetically modified crops in this province. Prince Edward Island, being an Island, is in a very unique position to be GMO-free. Instead of following the leader let us be a leader. Let us produce GMO-free crops which are much in demand giving our farmers a fair return on their labour and investment. We can see that there is a great potential for GMO-free crops and livestock. Let us be concerned with the health of the soil, the health of our livestock and the health of our people. Thank you for your time.

Wilbur MacDonald(PC) Chair: Thank you very much. Do we have questions? Wayne.

Wayne Collins (PC): I appreciate your coming here today too and hearing from people direct from the farm community really has an impact on me, I know. But I did hear from another farmer who came to our table one time during the course of the hearings and I remember the phrase-he uttered it several times- that today in agriculture it's a struggle to make a living. The farmer has to have every tool in the box. And if you take away the option to have GMO crops you're taking away that tool in the box and you're putting me at a disadvantage with my competitors and we all know that it is a wider market today than just Prince Edward Island. I'm competing with farmers in New Brunswick and Nova Scotia, goodness knows where. How do you feel about not having every tool in the box and I'm wondering, you know, from your conversations with your fellow farmers and farm families, how would they react to having that tool in the box taken out?

David Ling: Well, Wayne, I feel that tool in the box is going to be a disaster taking place shortly because we've got a problem with cross-pollination taking place in the canola. We have a weed problem built up resistant to RoundUp and there's several other herbicides which do not control those weeds. That's a proven fact. So instead of solving problems and instead of creating a margin of profit for the farmer it's going to create a bureaucracy or some sort of a noose around his neck that you're going to put him down lower and lower all the time. And I know I've heard one farmer comment here he wouldn't want to go back to what it was, where he was 20 years ago. I assure you I know that same farmer. If he had his income, what he had 20 years ago and his debt load was far less 20 years ago than it is today. So I'm afraid instead of prospering we're on a collision course for a disaster. Because we're not going to make it. I don't know how big you're going to get on PEI raising hogs or beef cattle because we've got large units out in the western provinces that can produce cattle and beef much cheaper than we can and they're controlled by the big multi-national corporations.

Wayne Collins (PC): Do you think it is technically feasible to have a ban on GMOs for Prince Edward Island given the fact I suppose that some people purchase feed from off-Island that may be grown genetically, with GMO product in it and indeed how would one effectively enforce such a ban in the Island agricultural community? Do you see that it would be easily, that it would be something that the farm community would readily go along with or would you have to have almost a police force out there checking?

David Ling: Well, I think that's up to the farmers themselves. How far are they willing to take their own destiny? Just like this Rodney guy that was on there at the end when he said it's time that the farmer stood up and started to fight for their own rights. I didn't get to show the whole tape. It was on *Country Canada* two years ago, a year and a half ago.

But anyway I believe if we're going to succeed we have to establish priorities by having a safe food, by having commodities that are wanted in our area plus maybe export because we've done our own marketing now for the last, well this is our tenth year that we've went direct selling to the consumer. Well, actually I've been selling beef for

the last 25 years. Shortly after the new plant opened I sold the last beef animal there to them. Other than that we always had our own market. So instead of selling an animal- which happened since Mad Cow Disease disaster took place- farmers lost money, consumers still paid the same. So who's making all the money? So this is where we started to turn around and make our own market. Because we're getting at least twice as much for our product as what I would if I was selling on the market.

Wayne Collins (PC): I take it, David, you've never been tempted to try the GM seed in anything that you're growing.

David Ling: I was just one step away, Wayne- when I changed from, you know, I was starting using top-dressing on our potatoes, grain-getting top yields. But I could see after three years it just kept, the yields dropped off. Because I was over expecting, you know, I was just overloading the soil to a point that it wasn't good and I would have probably, I would have just stayed on that trend, heavens knows, cause I was just one step away by using ICM which is Intensive Cereal Management, which is using all your latest technology you can get your hands on. I wouldn't be where I am today. I'd be literally broke.

Wayne Collins (PC): Did you have friends in the agricultural community, fellow farmers who grow GM products, have you talked to them about it?

David Ling: Yes, I have.

Wayne Collins (PC): What's the conversation like when you ask them about it ?

David Ling: Don't really like to dwell in it too much because I just don't feel that, they just don't understand the situation and I guess I'm just . . .

Wayne Collins (PC): Do they rave to you about the benefits they're enjoying?

David Ling: No, I haven't heard too many other than they're saying they can use RoundUp and they can control weeds. But it's not controlling them all because I've seen some fields lately that are starting to get some more weed growth. So it's not a cure.

Wayne Collins (PC): So from talking to your

friends who are growing GM products, you as a fifth generation farmer, did you say?

David Ling: Yes.

Wayne Collins (PC): You have not seen with your own eyes and heard with your own ears from them the wonderful benefits?

David Ling: Well, some would try to paint a rosy picture but a year ago soybeans were a much better price than they are this year so I would have to say that the cost is going to outweigh their profits. Because right now, thank God that I did change, because back in the mid-seventies when farming was quite profitable we were able to take advantage. At that time too we were farming over twice the acreage. I was farming up to 300 acres. So I cut back. It was a hard thing to do, to say you were going to cut back. And do with the changes I've made. The first time I went through the ground with a pin harrows to take out the weeds, out of the grain, after the grain was up, boy, I thought I was crazy. You know, what happened? I'd never do it, never worked.

Honourable Philip Brown (PC): You didn't like (indistinct)

David Ling: And I'd just say this is what a farmer's got to do, try something different and experiment. And I was a stubborn old man and I kept at it and I said I'm going to make this work and I seen where somebody else told me it will work and I was bent to say yes.

Jim Bagnall (PC): Are you an organic farmer.

David Ling: Yes, I am.

Jim Bagnall (PC): Completely.

David Ling: Yes. I haven't used any chemicals now-well, I might have used a small amount in the early 80s, mid-80s but in 85 we changed our farm. But I wouldn't do it the way I did it. I would gradually change. It's like taking a drug addict off drugs, you've got a gradual . . .

Jim Bagnall (PC): We're hearing a lot of things. That you get a premium for your product because it's organic. Are you finding that?

David Ling: I could. I know right now what we're

doing, we're charging the same price for our meat as Sobeys is. Instead of getting-well, the best you probably could up until recently, you might get \$700 for a 550 pound beef animal. Well, we're getting double that. We're doubling our money.

Jim Bagnall (PC): You sell that where?

David Ling: At the Farmers' Market.

Jim Bagnall (PC): Can I ask-and I'm not trying to discredit anything you're saying-but if I was an ordinary beef farmer that wasn't organic and I went in to Farmers Market with my meat, would I double it too?

David Ling: Well, if you can-Sobeys are doing it so they're just selling your meat now, you know.

Edith Ling: I think it's important to say here that the consumers aren't paying any more for it.

Jim Bagnall (PC): But the grower yourself is getting a premium price.

Edith Ling: That's right. But we're still not getting premium price because I know I have people come in there from Ontario who want organic beef and they attend farmers' markets in Ontario to get it and they can't believe how cheap it is. But I mean we're getting three meals a day. We're not out to gouge the people. We're happy with what we're doing. We're giving them a good product at a fair price.

But you're talking another person- on to the rest of your question-another person to come in there. That would be totally up to the desires of the public that come through there.

Jim Bagnall (PC): Yes. What other products-I know you're saying you sell your meat there-what other products do you take to Farmers Market.

David Ling: Well, we have a small number of hogs and we do sell . . . I know the prices the last three, four years, average price is about \$125 to \$150 per pig. Right now you're lucky to get over 140. Retailing-same price as Sobeys-we can gross \$550 for that same pig. So there's money being made off of it after it leaves the farm gate. Somebody's making it. They all say, oh, yes, we're not making it. We're not gouging anybody they're definitely and we have that proof ourselves.

We know what Sobeys are charging. We get the meat priced the same as Sobeys are retailing at and that's what we're grossing.

Jim Bagnall (PC): You grow all your own feed?

David Ling: Yes.

Edith Ling: One thing, if a couple started, if we sold our farm to another couple today they would not be able to survive even getting a better price, a premium price, if they did the same as we're doing. They would not be able to buy that farm and run it without at least one of them working off the farm. So farmers still aren't getting what they really need because our inputs have gone up so much in relation to what we're getting for our product.

Jim Bagnall (PC): Well, that's been the history of farming for years, that the farmer's can't get the price that they need to produce the product.

Edith Ling: That's right but I don't want to leave the impression here that we're right because we're not. Just because we're getting that premium it still wouldn't be enough if we weren't at the position in life where we are.

David Ling: Because I've been talking to some of the large hog operators and they're getting pretty discouraged right now. They're just ready to throw in the towel because he can go and buy a big grain combine- he says he's got one, he's got it leased, turned in and he's got another one that's getting wore down-anyway it's going to cost him over \$300,000 to replace that combine.

Jim Bagnall (PC): Do you have chickens too?

David Ling: No, we don't

Edith Ling: Some vegetables.

David Ling: Some vegetables. But we're mainly-beef is what I've strived in. I was in hogs up to the mid-80s and this is where we were getting the problems because of the soil eroding so badly. I guess we were not leaving it in grass long enough. So instead of having six years cereals and one year, or cereals and then potatoes, we'd switch to three year cereals and four to five years in alfalfa hay. I even feed the alfalfa hay to our hogs.

Dr. David McKenna (PC): Great presentation there. I didn't get your name, Mrs. Ling.

Edith Ling: Edith.

Dr. David McKenna (PC): Edith. Okay, sorry. Just the question I have, now that you've changed our mode of practice in farming is your soil conditioning back up to where it was before you ruined it all, like as far as the organic matter and all the other stuff? Do you find you're back up to where you want to be or should be?

David Ling: It's better. We're getting it better each year. I have to say that our soil is a nice dark brown colour. It's almost like the top of this table- the centre part here, not the sides. Where when we, well, Honourable Tim Carroll when he was Minister of Agriculture-that was a few years ago now-he came to our farm one day. He just got out of the car and he said: your soil is not red. It was changing then, you know. But it's got much darker and it's easier to work and lots of life in it and as I was telling you I know a fellow farmer- we work together as a group, some of us, and we exchange ideas-he plowed down straw that was up to shoulder high when I'm standing up and that was five feet tall-mixed grain-with oats, barley and peas in it. And he plowed that in. He chiselled it. He chopped first after he cut it when he harvested the grain. He left it all on. The next year we went back to that farm and Harvey Cairns from the Soil Lab here was with us and he couldn't believe it. We couldn't find any residue of any sort in the soil. It was digested totally.

And when I was farming with chemicals I'd plow down a layer of straw one year, roll her back up the next year and all I did was change colour. And we tried the chisel plow and mboard plow and after I changed over from-well, I was even using the chisel plow before we changed, went to organic-and Raynall MacNeill from the Soil and Crop Association, he said whatever you do always check, have a check plot. So we left a portion of the field, mboard plowed it and a chisel plow. It took us five years before I could get the yields comparable to mboard plowed. The mboard plow was better because I was getting rid of that residue where when I was chiselling it it was left intact. It wasn't breaking down like it should. So in our case it took us at least seven years before I got our soil in a fertility state that was starting to work.

Dr. David McKenna (PC): And that's the second part of my question. Now that you've got your soil coming back and you're not using, I assume you are still using fertilizers?

David Ling: No fertilizers. What I'm producing on the farm, we're composting our manure.

Dr. David McKenna (PC): Composting everything. I tried that in my garden too. Anyway you are getting the yields that you should be getting? Are they back up to where they should be now?

David Ling: Yes. We're just getting as good a yields. I know I've talked to a lot of farmers and they're lucky to get over a tonne and a quarter of barley per acre while we're growing mixed grains with peas in it and I'm averaging a tonne and a half per acre, which is about 15 per cent protein. It's a good balanced feed. And our wheat crop is yielding at least a tonne and a quarter. Some years I had got as high as two tonne, winter wheat. But on the average a tonne and a quarter. So I'm not ashamed and I really can say that it saddens me to see farmers do fall harvesting in August and early September. I have a neighbour, right next to him, he harvested the grain, got somebody in to take all the straw off the field, up to three weeks ago it was an nice growth of weeds and grass started to grow or grain that was thrown over the harvester. He didn't touch it, do nothing, put the RoundUp to it three weeks ago and now he's going, after he's through harvesting the potatoes, going to go in there at the end of October or maybe in November, mboard plow it and I'll guarantee you two years ago the ditch was full of red soil.

And I argue the point we're doing it, I go in with the sweeps. I was going to show you what the equipment I have to do it with, my wife said, no, you don't take that in. (Laughter) But we have sweeps that we put on the chisel plow. It just shears everything off about an inch deep. I can travel about ten mile an hour if I want to go that fast. It's easy hauled. Leave it for four or five days or in my case this year I went in two days, went back again, give it another and I went and I applied my compost - 25 loads on 10 acres, it was a ten acre field. And then I chiselled it with the seven inch twisted shovels through it, large spades on the chisel plow, turned everything over and that 10 acres with that two passes from the chisel plow

and 25 loads of compost which I had to haul almost a mile and chiselled it-15 gallons of fuel. So I'll guarantee you you'll not do it any more efficiently.

Honourable Philip Brown (PC): That was including hauling your compost.

David Ling: Hauling my compost, everything.

Dr. David McKenna (PC): Where do you get your compost?

David Ling: We have it on our own farm.

Dr. David McKenna (PC): You make your own.

David Ling: Oh, yes, we have our own. Sixty head of livestock. So we have three, 400 tonne of compost. I use lots of straw.

Wilbur MacDonald(PC) Chair: Wayne.

Wayne Collins (PC): Just a short question. Earlier today we had another fine presentation from Raymond Loo, an organic farmer, and he was saying that even in the face of GM crops being planted on Prince Edward Island and across Canada that the organic agriculture industry was increasing. And he mentioned-and my figures are right- he said anywhere from, it's now gone from 25 up to maybe 48 organic farmers on Prince Edward Island. I hope my figures are right. Are they? Leo, you were here at the time. You're nodding yes. So my question is this. We talk a lot about banning GMOs or putting a moratorium on them. Either way what do you think such a move, what effect would it have on organic farming on Prince Edward Island, if any?

David Ling: With GMO?

Wayne Collins (PC): Yes, if government were to ban GMOs.

David Ling: Was to ban them.

Wayne Collins (PC): The planting of GMOs on PEI.

David Ling: To abandon it or to allow it?

Wayne Collins (PC): To ban it. What effect

would it have on organic agriculture?

David Ling: Well, I see there's a great potential if we can keep our soil, keep - if we haven't already contaminated because I understand there's GMO canola already grown here- and as long as we haven't created a burden right now with cross-pollinating. It will even cross-pollinate with mustard they say, wild mustard. So as long as we haven't got that problem. We are in an opportunity here I see for (indistinct). You know, isolation, we should be able to have a market of our own for these products.

For instance our hogs and beef, we have a number of people who cannot eat store bought beef and they've been buying it from us now in the last five, six years. Somebody told them you try us and they couldn't believe it. They said, yes, we can eat your meat. And they had problems with eating meat that was mass production. So we're, as I say, we have something here to show other farmers, other people, it can be done. And it can be done, not on a huge scale, but it should be done. We're only small but we could build up to much greater if we wanted to. But at my age I'm winding down. So I think it's a great opportunity for GMO-free.

Jim Bagnall (PC): How many acres are you farming at the present time?

David Ling: Hundred and fifteen. Well, we do rent probably 25 or 30 so we might be up to 140, 50 acres. But as I said before I changed over. We were farming 300.

Jim Bagnall (PC): Do you grow all your feed for your beef cattle?

David Ling: Yes.

Jim Bagnall (PC): On 115 acres.

David Ling: Hundred and fifteen acres, well 140, 50 acres, yes. We raise enough for the 60 head plus a few pigs.

Wilbur MacDonald(PC) Chair: Okay. Any more questions? Philip.

Honourable Philip Brown (PC): Certainly appreciate your presentation Edith and David and I watched you for the 25 years you've been doing

this and I remember you winning those awards at the Soil and Crop Association because I used to come probably third or fourth.

David Ling: I was top in those three years.

Honourable Philip Brown (PC): Oh, yes, you were.

David Ling: Wasn't because I wasn't doing things right. But that's what I thought was the ideal way to go.

Honourable Philip Brown (PC): You were achieving. Like your 107 bushels of barley certainly opened my eyes.

David Ling: Okay, we've got evidence here. I'm not pulling something over your eyes. (Laughter)

Honourable Philip Brown (PC): Following that model you were doing everything right. And I know you were at the hog meetings during the 80s too. But when I see what you did -and it's not particularly easy what you did because philosophically many of your fellow farmers-it's not only that they don't like the fact that you're doing it, they don't like the idea that you're doing it because in some ways you're throwing a monkey wrench into the model.

David Ling: (Indistinct)

Honourable Philip Brown (PC): Yes, it's difficult. And that's where as a committee we wrestle because there is a model or there is a production trend and so when I see what happened, you and other organic farmers, you had to take control but you had to take it all the way, all the way to the consumer because if you only take it on the production side and sell into the traditional . . .

David Ling: You couldn't do it.

Honourable Philip Brown (PC): You couldn't do it. It won't work. And so you have to follow it every step of the way. You're producing for me the consumer or whoever your consumer is. And that's where I see the challenge. I mean there's not many people in agriculture-it's not that you will or won't speculate on the correctness of the model-it's your ability to change it as part of the production system most people would feel is not

that great. I mean if I depend on someone else for-let's just use for example I'm a finish operator of a hog business and I'm finishing 5,000 pigs a year but all my feed source is coming from someone else because I don't produce it and then I have to sell those 5,000 hogs. Obviously I can't take 5,000 to the Farmers Market. And so I'm dependent on the inputs and I'm dependent to market my products so my flexibility to do what you did is not even possible. I mean it must have been the hardest thing you did was to reduce your acreage.

David Ling: Yes, it was. Really thought I was nuts and I said how can you survive if you're going to cut back? And it was a hard thing.

Honourable Philip Brown (PC): It's against the . . .

David Ling: You're brainwashed to the point that you just have to keep progressing.

Honourable Philip Brown (PC): Yes, that's how you get ahead, right.

David Ling: Well, I was going to be hit harder than that. Back in the mid-70s, my wife, she was working, Edith here, she was working at the Department of Agriculture, the Minister of Agriculture-she was the minister's secretary for years. And she, when our first child was born, she retired, stayed home.

Honourable Philip Brown (PC): Retired? (Laughter)

David Ling: Retired from the job, paying job. At that time the trend was jump on the bandwagon with all the rest - 200 acres of potatoes, minimum. You can't do with anything less. And I was going to go that route. Only for my wife, Edith here, she put the blinkers on me and she comes up with what's wrong with you? We're making money, we've got no debt-which we had none- what are we looking for? We weren't starving, we were making money and we got everything paid for and we could buy something and pay cash for it. And I was willing to go and invest . . .

Honourable Philip Brown (PC): The whole shooting match.

David Ling: . . . shoot her all down the tubes. In

1982 what would have happened - 24 per cent interest. I don't care how big an operation you had or how successful. It would have killed you. And thank God my wife had some wisdom. (Laughter)

Wayne Collins (PC): Behind every good man they say there's a great woman.

Wilbur MacDonald(PC) Chair: I think that's a good place to end up. We want to thank you very much for coming and we certainly appreciate you taking the time to come. It's a very timely presentation. Thank you very much.

David Ling: Thank you for hearing us.

Wilbur MacDonald(PC) Chair: And we're going to go in camera in a few minutes, for a few minutes if you don't mind. And that means we'd ask you to leave the room, if you don't mind.

Dr. David McKenna (PC): I make a motion to in camera.

Wilbur MacDonald(PC) Chair: A motion to go in camera. Seconded.

Jim Bagnall (PC): So moved. Move that we go in camera.

Wilbur MacDonald(PC) Chair: He has moved. All those in favour. No, we don't need a seconder.