



House of Commons  
CANADA

# Standing Committee on Agriculture and Agri- Food

---

AGRI • NUMBER 017 • 2nd SESSION • 40th PARLIAMENT

---

EVIDENCE

**Thursday, April 30, 2009**

—  
**Chair**

**Mr. Larry Miller**

Also available on the Parliament of Canada Web Site at the following address:

**<http://www.parl.gc.ca>**

## Standing Committee on Agriculture and Agri-Food

Thursday, April 30, 2009

•(1105)

[English]

**The Chair (Mr. Larry Miller (Bruce—Grey—Owen Sound, CPC)):** We'll call this meeting to order.

We'd like to welcome our witnesses here today from the Canadian Renewable Fuels Association: Mr. Quaiattini, Mr. Haig, and Mr. Passmore. We have all three of them here. And from the Canadian Petroleum Products Institute, we welcome Mr. Peter Boag and Mr. Tony Macerollo.

We'll open up with each organization having ten minutes or less for their presentation. We'll start with the Canadian Renewable Fuels Association, and Mr. Quaiattini.

**Mr. Gordon Quaiattini (President, Canadian Renewable Fuels Association):** Thank you, Mr. Chairman, and good morning to all the members of the committee. Thank you for having us.

Again, as the chairman said, my name is Gordon Quaiattini. I am the president of the Canadian Renewable Fuels Association. The CRFA represents the full value chain of stakeholders committed to building a robust and dynamic renewable fuels industry here in Canada.

I am pleased to be joined by Jeff Passmore, the chairman of the board of the Canadian Renewable Fuels Association. Jeff is also the executive vice-president of Iogen Corporation, a global leader in the development of next-generation cellulosic ethanol. Also with me is Tim Haig, the chief executive officer of BIOX Corporation, Canada's largest biodiesel producer. Tim is also the immediate past chair of the CRFA.

Ladies and gentlemen, in these difficult times, I appear before you today with a message of new opportunity, new hope, and new growth. Renewable fuels are now and in the coming years a story of new economic opportunity for Canadian farmers and rural Canada. Renewable fuels are creating new markets for agricultural producers, revitalizing communities, reducing harmful greenhouse gases, and offering consumers new choice at the pump. Every year, new advances in technologies for making renewable fuels like ethanol and biodiesel are opening up even more opportunities, and offer more economic and social benefits. Next-generation biofuels are rapidly coming to market, and thanks to the hard work of many members and parties in the House of Commons, Canada stands to benefit even further.

Let me first give you a sense of our industry on some key metrics. Renewable fuels in Canada today, including current and planned projects, will create some 14,000 new jobs and generate \$1.5 billion

in new economic investment in Canada. Even if we don't grow beyond what's on the books now—and I believe we will—renewable fuels will be responsible for 10,000 direct and indirect permanent jobs, and roughly \$600 million in annual economic activity, much of that rooted in rural Canada, close to the feedstock sources we require to make biofuels.

The demand our plants create will amount to a 240-million-bushel new domestic market for Canadian-grown oilseeds and grains, which will help keep commodity prices at a fair level, thus lowering government support payments, and will assist in making more farms across Canada financially viable again.

Having new markets and value-added processing here at home are especially important on the prairies, where wheat growers have seen the price of that commodity drop in real dollars for over a century. Yet they still rely overwhelmingly on export markets. The biofuels option finally gives them some choice.

The good news about these numbers is that Canadians overwhelmingly agree that we as a nation are on the right track. The CRFA just completed an independent nationwide survey of Canadians, and the results were clear: 69% of Canadians support the move to replace fossil fuels in part with renewable fuels; 76% of Canadians approve of the new law to introduce a national renewable fuel standard, which boosts ethanol and biodiesel content at the pump and, by extension, guarantees market share for our agriculture producers; and 87% of Canadians support federal and provincial government policies and programs that would invest in the development of next-generation biofuels made from non-food feedstocks, such as agricultural biomass, waste materials, and algae.

The renewable fuels sector is in the infancy of a transformation, a bio-revolution that will be every bit as far-reaching as the information revolution in the 1980s. It is most apparent in our industry—that is, in the creation of renewable fuels that draw on what we harvest rather than what we extract. But we are only at the beginning, the cornerstone upon which this vast new opportunity is being built. Soon the full potential of the bio-economy will be plain to see, as all kinds of biomass, grown and harvested, will also be the feedstock for plastics, chemicals, pharmaceuticals, and many other materials. New jobs will be created, industrial policy will adapt, and agriculture can again become a truly growth industry.

Obviously, the bio-economy will not wipe away the need for other resources. The correct precedent to consider, quite frankly, is our own. Renewable fuels will not supplant oil—at least not in any of our lifetimes—but we are able to supplement and add to the energy mix, and by doing so we moderate the price. Renewable fuels such as ethanol and biodiesel are the only viable, real, and accessible alternatives to oil for transportation fuels today and in the foreseeable future.

These are some of the broad benefits that are felt by all, but there are specific benefits as well, most notably for Canadian agricultural producers and rural communities. Canadian growers will become suppliers to not just the food and fuel sectors, but also to industries of all sorts. Consequently, rural communities stand to gain from rising farm incomes and major investments in infrastructure. All of this will place a premium on the issue of sustainability, which is one of the core questions included in your work. Indeed, sustainability is fundamental to secure both the required environmental and productivity achievements of our sector.

On this point, allow me to pause and offer the committee a concrete example drawn from our own experience. A year ago, when crude oil prices were skyrocketing on their way to nearly \$150 per barrel, there was a season of intense debate—a misleading and deeply unfortunate debate—with respect to fuel and food. The accusation was that demand for biofuels was leading farmers to divert their grains. Corn was the most prominent example. Indeed, notwithstanding the obvious hyper-inflationary effect of record oil prices, biofuels were also tagged for rising crop prices, leading to the additional suggestion that we were making it more expensive for cattlemen to feed their livestock, thus leading to higher prices at the grocery store.

None of that was true. After exports, North America generated a two-billion-bushel surplus in corn, far outstripping the combined demand of food, feed, and biofuels. Moreover, the inflationary effect was sparked by oil prices, not biofuels. As the price of oil has dropped, so too have prices for commodities right across the board—not always to their pre-spike levels, but certainly down to far more sustainable standards. Simply said, high oil prices were the culprit.

If there was one positive factor to emerge from that entire discussion, it was the spotlight it shone on sustainability and the outstanding performance of Canadian growers. It merits mention because the record of our agriculture sector is poorly understood, which means it is poorly promoted.

This means we are making too little of a global competitive advantage that Canada should be proudly consolidating and sharing around the world. For example, yields are increasing dramatically, even with fewer inputs. In the 1980s, farmers could generate roughly 70 bushels of corn per acre. Now that is up to 150 bushels per acre. And recent predictions see yields growing within five to ten years to 300 bushels per acre. Advances in all areas of crop science are occurring.

Canadian growers are world leaders in keeping direct soil emissions low. Our performance outstrips that of nearly every major European and Eurasian competitor, and by as much as 500% in some cases. And Canadian agriculture leads in areas of finding efficiencies

and using new technologies in farming, such as no-till usage. More needs to be done, but we are in a position to lead from the front.

Environmentally, the International Energy Agency recently published a report that made clear that grain ethanol enjoys a 55% advantage over traditional gasoline when it comes to reducing harmful greenhouse gas emissions. Similarly, the energy balance for ethanol was determined to far outpace that of fossil fuels.

So when it comes to the future and fashioning policies that support this sector, we urge the committee to place sustainability at the core of your efforts. This is how we get more from less, and how we do so in a way that nurtures our relationship with croplands, and how we respect and increase environmental performance.

Let me close by making a few broad recommendations in that respect.

First, maintain and expand, as time unfolds, support for renewable fuels. That will undoubtedly sound quite self-interested, but let me give you the publicly interested rationale. The bio-economy is coming, but so far it is largely anchored in biofuels. That is where the action is. The tools, experience, and expertise are being developed by way of supporting renewable fuels. So pressing our advantage in this area only serves to reinforce the leadership Canadian farmers are developing in the bio-economy.

•(1110)

Second, help producers finance the costs of transitioning to sustainable practices. Often the price of adopting sustainable farming practices is felt in short-term revenue forgone. And for farm families struggling to get by, that's a tough price to pay. Government can help by expanding its support for that transition.

Third, do not slow down the stampede toward sustainability by asking our farmers to meet a series of onerous bureaucratic tests that will only increase the cost of transformation. Government should assume the burden of collecting data, measuring change, and reporting success.

Fourth, the government should combine forces with provincial counterparts and other relevant agencies to create an international promotion campaign to support the sustainability success of our agricultural producers. To coin a phrase, we've been hiding our light under a bushel, and it's well past time we told our story.

Finally, we are calling on this committee and the federal government to support an accelerated process to put in place the required regulations to implement and enforce the national renewable fuels standard. Canada's Parliament passed Bill C-33 in June of 2008. The environmental and economic development opportunities that we have outlined will only be realized by ensuring that the 2010 commitment to implement the RFS is kept. The renewable fuels industry stands ready to work cooperatively with all stakeholders in a transparent and accelerated consultative process to get the job done.

In closing, let me thank the House of Commons for its leadership, and simply reiterate that Canada, and rural Canada in particular, is uniquely positioned to grow and prosper from the further development of renewable fuels and next-generation renewable fuels. We are only beginning to realize the true value of this new and promising industry.

Thank you.

Thank you, Mr. Chairman.

• (1115)

**The Chair:** Thank you.

Mr. Boag, go ahead for ten minutes or less, please.

**Mr. Peter Boag (President, Canadian Petroleum Products Institute):** Thank you, Mr. Chairman and members.

Good morning. I'm Peter Boag, president of the Canadian Petroleum Products Institute. With me this morning is Mr. Tony Macerollo, our vice-president of public and government affairs.

We certainly appreciate the opportunity to meet and speak with you today on the subject of competitiveness of the Canadian agricultural sector.

By way of introduction, the Canadian Petroleum Products Institute represents the refining and marketing sector of the petroleum industry, what's commonly known as the downstream petroleum sector. Our aim as an institute is to advance best practices in regard to the environment and health and safety, as well as to provide information on the industry in order to assist in sound public policy development.

The agricultural sector is important to our members for three principal reasons: one, the agricultural sector is a large and important customer of our members; two, the emergence of renewable fuels is creating new collaborative relationships with our members; and three, CPPI members are also neighbours of much of the agricultural community, from refining and terminal facilities to pipelines.

For a moment, consider the following facts from Statistics Canada, taken from the 2006 agricultural census. There are nearly 250,000 farms in Canada, with nearly 750,000 tractors worth \$13 billion, 500,000 trucks worth over \$5 billion, 300,000 cargo and pickup vans worth \$3.5 billion, 100,000 combines worth \$4 billion, and 750,000 pieces of tillage and cultivation equipment, swathers, mower conditioners, and passenger vehicles, worth about another \$6.5 billion.

That's a lot of expensive equipment that requires high-quality fuel to operate. Providing high-quality fuel choices to farmers and other consumers is the principal preoccupation of CPPI members. For Canada's agricultural sector, quality fuel equals productivity and competitiveness. Simple things can be important, like ensuring the fuel delivered to farmers' tanks operates dependably year-round.

So what have we been doing to deliver on our commitment to high-quality fuel choices? Reducing sulphur content has been a major focus during the past decade. This multi-billion-dollar investment program started with the reduction of sulphur in diesel for heavy-duty trucks and on-road applications, from 500 parts per million to 15 parts per million. This phase was completed in 2006.

CPPI members are now in the process of reducing sulphur content in off-road diesel, diesel principally used on farms, from 500 parts per million to 15 parts per million. This process began in 2007 and will be complete by June 2010.

Reducing sulphur in diesel protects the environment and human health through the reduction of harmful emissions from diesel-powered engines and equipment. The phased approach that we've taken ensures that the level of sulphur in diesel fuel used in off-road engines—farm vehicles, for example—will not impede the effective operation of advanced emission control technologies.

Our most important contribution to ensuring the competitiveness of the Canadian agricultural sector is ensuring a highly productive refining sector in Canada. Our members work hard to ensure that all consumers, including farmers, have access to high-quality, competitively priced fuels.

I'm happy to say that Canadian consumers, including farmers, benefit from fuel costs that are among the lowest in the western world, generally second only to those in the United States. This fact is supported by data provided by independent third-party analysts, and I think we have for distribution later an example of some of that data, which shows where Canadian prices and costs relate to those of competitors around the world.

An evolving relationship between the refining and marketing sector and the Canadian agricultural sector is the evolution and use of biofuel blends using ethanol and renewable diesel. CPPI recognizes that this represents a new area of economic opportunity for the agricultural sector under the right conditions. Indeed, several CPPI members themselves are very active in the biofuel marketplace.

Shell is one of the world's largest distributors of first-generation transport biofuels. Shell and my colleagues at logen Corporation are considering investing in a full-scale commercial cellulosic ethanol plant in Saskatchewan, with potential opportunities for farmers to find new markets for wheat straw.

Husky Energy's Minnedosa ethanol plant is one of the largest plants of its kind in western Canada, producing some 130 million litres of ethanol per year. That's matched by a second plant in Lloydminster, Saskatchewan, which also produces that quantity of ethanol. Together these plants make Husky the largest producer and marketer of ethanol in western Canada.

In Ontario, Suncor Energy has its own specific relationship with the agriculture sector, including an investment relationship with a group of farmers. Suncor's St. Clair ethanol plant has a current production capacity of 200 million litres per year. A \$120-million expansion is under way and is expected to double its capacity to 400 million litres per year.

• (1120)

The plant currently uses 20 million bushels of corn annually, approximately 10% of Ontario's annual corn crop. Of course, that consumption will double when the expansion is completed.

Many of you will know that in 2006, CPPI supported the desire of the federal government to implement a national renewable fuels mandate. In partnership with our colleagues at the Canadian Renewable Fuels Association, we offered an agenda and key elements for its successful implementation.

We appeared last year before this committee as it was examining Bill C-33. We supported its passage but cautioned that time was running out for implementation of a 2010 mandate.

We are now here almost one year later, and, I am sorry to say, we have to inform members of this committee that there have been more than a few hiccups with the implementation of the renewable fuels strategy that will make its launch, in our view, much less optimal than it could have been.

When the notice of intent to require renewable content in transportation fuel was published in December 2006, there were few provincial mandates in place. This is no longer the case. The hard reality is that the proliferation of provincial mandates has created a patchwork of different fuel requirements that, in the end, may create additional barriers to the efficient and free movement of product between provinces.

The notice of intent quite rightly estimated a regulatory design period of about two years. It is complicated for the federal government and for fuel providers. It's not a simple matter.

Had things gone according to plan, the plans laid out in the December 2006 NOI, I wouldn't be relaying these concerns to you today. Unfortunately, the government has not met its path forward and timetable as laid out in the NOI.

In the absence of regulatory certainty, CPPI members have been constrained in their ability to move forward to complete implementation planning and infrastructure investment and acquire the necessary approvals from provincial and local jurisdictions.

As a result of the delays encountered since the December 2006 publication of the NOI, the majority of CPPI members will be unable to meet a 5% renewable mandate for gasoline beginning in January 2010.

This is a fixable problem, but it will involve some compromise and creativity. In terms of timing, I suggest that a 2012 implementation period for both the 5% renewable content in gasoline and the 2% biodiesel would be more appropriate. At a minimum, a flexible and phased approach will be required.

It is unfortunate that it has come to this. Regardless, there are only so many hours in the day to accomplish the work that needs to be done. We don't yet have the regulatory certainty for much of that work to proceed without causing potential negative unintended consequences for consumers like farmers.

I should say that we have not stood still, though, in that intervening period. In particular, we have been working hard to better understand how biodiesel solutions in particular might apply in a Canadian setting. This is especially important for farmers, as significant users of diesel fuel all the way from the tractor to the furnace that heats the farm.

We have been an active partner in projects related to renewable diesel. CPPI supported the Alberta renewable diesel demonstration project, led by Shell and Climate Change Central, and is now working on a NRCan-sponsored Imperial Oil biodiesel research project in Sarnia.

In the Alberta project, the ARDD has shown that B2 blends of canola, methyl ester, and 2% blends of hydrogenation-derived renewable diesel are fully operable in winter conditions in the study area when cloud points are adjusted to meet CGSB requirements. The demonstration has also shown that B5 blends can be successfully made and used in shoulder and summer seasons.

We gained a critical understanding on the infrastructure requirements of quality assurance precautions essential to ensuring, in particular, proper cold flow properties of biodiesel blends in winter conditions.

The next challenge will be to move from the controlled conditions of the successful demonstration project to a real-world rollout in real time. Petroleum refiners and marketers must now ensure that we can reliably supply customers, such as farmers, through a complex national distribution network that includes thousands of retail outlets across the country, many of which are independently owned and operated.

Successfully bringing biodiesel to market on this scale will require a considerable amount of work and expense to be undertaken by fuel suppliers. There are standards issues as yet unresolved, only a limited distribution infrastructure, and several outstanding issues with regard to storage, blending, and transportation of biodiesel.

● (1125)

The key finding of the Alberta demonstration is that considerably more jet-type aviation kerosene fuel must be added to the petroleum blend stock in 2% and 5% biodiesel blends to ensure that these blends will work in Canadian weather conditions. Canada is a current net importer of this type of fuel, which could increase our reliance on foreign fuel sources.

CPPI members are committed to meeting quality standards and the expectations of consumers. Governments must be careful that the design of mandates doesn't lead to operational problems—for example, the waxing of fuel in cold weather conditions. An ongoing biodiesel research project in Sarnia is addressing some of the additional challenges, particularly those that relate to the stability of biodiesel blends in low-temperature conditions.

It's also important to acknowledge that many questions have been raised globally since the publication of the NOI about the merits of biofuels. These questions span a wide range of issues, from the life cycle environmental performance of biofuels to issues regarding the food-for-fuel issue, to massive subsidization globally of biofuels. This larger debate over the role and merits of biofuels is best left to other forums; however, I will emphasize the important need for robust and credible life-cycle analysis to support a biofuel agenda driven by an environmental performance policy objective. In the absence of this, I urge you to carefully review the use of CEPA for mandating renewable transportation fuel requirements. I might add that Canada will never be able to match the generous biofuel subsidy program regime south of the border.

I do want to end on a positive note and reinforce that CPPI supports a thriving Canadian agricultural economy. We are partners, and from time to time we may have differences of opinion and get caught in situations that may seem intractable, but there's always been a solution. Canadian petroleum refiners are committed to finding appropriate solutions to the challenges that we face today, particularly with respect to the implementation of the federal RFS.

**The Chair:** Thank you.

We'll move to questioning.

Mr. Valeriote, for seven minutes.

**Mr. Francis Valeriote (Guelph, Lib.):** Thanks, Gordon, and I'd like to thank all of you for attending today and sharing your thoughts on this important industry.

Gordon, my first question is for you. You talk about 69% of Canadians supporting the move to replace fossil fuels in part with renewable fuels, and then you recite that 76% of Canadians approved of the new law. Being new to Parliament and new to this committee, I need to dispel in my own mind some of the myths that may be out there.

You've tried to dispel one of those myths by saying that it really isn't a challenge to our food supply because we had a surplus in corn this year. I'm not completely convinced by that argument, because there may be years when we don't have a surplus in corn and in fact the fuel industry will be in competition with the food industry for corn as food. I'm hoping that you folks will focus on non-food agricultural products, other cellulose like switchgrass, etc.

And can you talk to me about the environmental impact? There's clearly a proposition out there that the GHGs that are emitted in the farming and creation of these fuels exceed the benefits from using the fuels. Could you talk to me about that at length?

• (1130)

**Mr. Gordon Quaiattini:** I appreciate the question and the premise about the myth, because that's exactly what it is, a myth.

The International Energy Agency released a report within the last month, which is the most up-to-date life-cycle assessment evaluation of renewable fuels, and they looked back over the last 20 years of renewable fuels development, so data back in the 1980s, 1990s, and also in fact projecting forward into 2015. So the number that I make reference to, the 55% reduction of greenhouse gas by blending a litre of ethanol as compared to fossil fuel, is the most accurate life-cycle

assessment data we have that demonstrates the greenhouse gas benefits that are derived by ethanol.

**Mr. Francis Valeriote:** And for clarity, that includes any emissions from the whole life cycle?

**Mr. Gordon Quaiattini:** That is exactly what life cycle assessment means.

And the model that they use, quite frankly, is a credit to the Government of Canada. The GHGenius model, which is a life-cycle assessment model, deemed one of the most comprehensive, on a global basis, was developed through Natural Resources Canada. And it is not only used here in Canada for, quite frankly, life-cycle assessment on all forms of energy—oil production, renewable fuels production, wind, solar—it's viable for all forms of energy use, and it is the most comprehensive.

**Mr. Francis Valeriote:** And is the author of that report at arm's length from the industry?

**Mr. Gordon Quaiattini:** Yes.

**Mr. Francis Valeriote:** Can you submit a copy of that report?

**Mr. Gordon Quaiattini:** Sure. We'd be happy to. I can submit it to the committee. I don't have it with me today, but I will certainly get it to the clerk, for sure.

**Mr. Francis Valeriote:** I would appreciate a copy.

I have another question. On your last page, you say, "Second, help producers finance the costs of transitioning to sustainable practices.... Government can help by expanding its support for that transition." Tell me what you have in mind when you talk about government expanding its support for that transition. Give us some elements that you see.

**Mr. Gordon Quaiattini:** I don't know that there are any specific elements. It's more the broader issue of the agenda around sustainability. We are being asked, as a biofuels industry, to take that issue very seriously from an economics, environmental, and social perspective. In doing so, we have suggested to a number of different forums, including the Canadian government, that looking at the issues around sustainability with respect to our industry by default implies that you would have to look at our feedstock sources as well. So when you look at a number of practices that have been put in place, which I alluded to in our presentation, Canada is a significant leader in that effort. We use lower amounts of inputs in our agriculture. In fertilizer inputs, for example, nitrogen content is clearly diminishing. We have no-till practices. The province of Quebec has fairly progressive agricultural practices with respect to where farmland is located, ensuring that you're not planting crops near open waterways and things like that.

Our members, our producers in Quebec, GreenField Ethanol and their Varennes project, in fact go beyond provincial standards and have established sustainability criteria practices, so that if you want to provide that feedstock to that ethanol plant, you have to meet a number of these additional conditions. So I think my suggestion is that we simply look at some of those models that we already have and expand them.

**Mr. Francis Valeriote:** Thank you.

I have another question, for either Mr. Boag or Mr. Macerollo. The relationship between biofuel refineries and oil refineries has sometimes been quite tense in the United States, and I would like to know how you would qualify this relationship in Canada. How would you describe it? Does the fact that some of the most important biofuel producers in Canada are also major players in the oil and gas industry have an impact on the competitive landscape? How do farmers stand to benefit or suffer, frankly, from that relationship?

**Mr. Peter Boag:** I would first answer your question by saying I don't think that in Canada there's the same degree of tension you've just implied is in the U.S. As you quite rightly acknowledge, a number of our member companies are in both the petroleum-refining business and the renewable fuel industry. So that clearly provides a different dynamic. I think another telling point, to answer your question, would be the fact that our industry supported the federal renewable fuel centre. We worked diligently with our colleagues at CRFA to lay out what we thought would be the most efficient and effective path for the government towards implementation of that mandate.

• (1135)

**Mr. Francis Valeriote:** Can we talk about research?

**The Chair:** Keep it very brief.

**Mr. Francis Valeriote:** To what extent do you think this government has satisfied the need for it to participate in research in this particular industry, whether supporting the industry itself or universities? Can you give us your opinion on that? Research is vital to this industry.

**Mr. Peter Boag:** There's no question. There is research going on in a number of different arenas. Some of that research I've talked about this morning in terms of where industry is participating, particularly around the area of the implementation of the biodiesel mandate. In fact, one of the requirements was to satisfy some issues with respect to the demonstration of the feasibility of the addition of biodiesel, before implementation of the biodiesel mandate at the latest in 2012.

We're also, as an industry, working with universities and examining, for example, some of the issues with respect to the impacts of ethanol and gasoline in the water table when spills occur. So yes, research is occurring. I'm not knowledgeable enough to tell you all of the research that's going on in all of the potential institutes in Canada, but certainly research to ensure that biofuels work for Canadians and that they deliver on the policy objectives that government is seeking is a critical requirement.

**The Chair:** Thank you.

Mr. Bellavance, go ahead for seven minutes.

[*Translation*]

**Mr. André Bellavance (Richmond—Arthabaska, BQ):** Thank you for your testimony. I would like to talk about the sector's economic health. It is not that easy to find information, because most of your members are private companies.

[*English*]

**The Chair:** Excuse me, Mr. Bellavance. My volume isn't coming through very well.

Just try again, André.

[*Translation*]

**Mr. André Bellavance:** I was talking about the economic health of the biofuels industry. We do not have access to a lot of information because the companies are private. But we can connect some dots, especially with what is happening in the United States.

In 2008, production went up but profits went down. Is that correct?

[*English*]

**Mr. Gordon Quaiattini:** Yes. In terms of current production right now, we are at about 1.3 billion litres of ethanol production in Canada. On the biodiesel side, that number is about 120 million litres in a mandated market, which would see, on the ethanol side, a demand of two billion litres, and on the biodiesel side a demand of between 500 million and 600 million litres.

[*Translation*]

**Mr. André Bellavance:** I was not thinking of any particular industry more than another. Overall, have profits gone down, as they did in the United States between 2007 and 2008?

[*English*]

**Mr. Gordon Quaiattini:** The issues happening within the renewable fuel sector in the United States are not quite happening in the same dynamic here in Canada. As you know, there has been a series of bankruptcies and plant slowdowns in the United States. In part, that was driven by the fact that the industry grew at a pace that exceeded the mandated market within the United States.

For example, in 2009 the ethanol mandate, the requirement on the ethanol side in the United States, will be 9 billion gallons. In 2010 that number will grow to 10.5 billion. But in a world in which production capacity had been built to almost 12 billion.... Actually, it was probably about 11 billion or 11.5 billion, so their production build-out in fact exceeded that.

When the price of oil hit the range of \$140 or \$150 a barrel, ethanol was trading considerably more cheaply than gasoline, so what you ended up having in the U.S. dynamic was a lot more discretionary blending beyond the current mandates in the United States, because there was a price advantage. There was a margin advantage for oil producers in the United States to in fact do that.

With current demand overall coming down, the realities of that overproduction capacity, and the diminishing discretionary blending taking place, you have the current problems in the United States until the further mandate targets kick in.



In Canada, we don't have that issue. We haven't built out yet to our mandated targets. That's why we have argued, quite frankly, that we think we have a very balanced and measured approach in terms of developing the industry here in Canada, so we're not in a situation in which we have plants that are being challenged economically and are threatened with closure right now.

Are the economies tighter right now? Of course they are, but that, quite frankly, you could apply to every sector across the economy. We would be no different in this environment.

• (1140)

[Translation]

**Mr. André Bellavance:** Would you agree that, without subsidies, the industry would have a hard time being viable? I look at what is happening in the United States and I am very surprised to see that companies there are very heavily subsidized. I understand the reasons as you have explained them: some companies in the United States have gone bankrupt.

When do you expect to reach a point when subsidies to the biofuel industry can be discontinued and it can become viable and start making profits on its own? Have you forecast when that tipping point will be?

[English]

**Mr. Gordon Quaiattini:** I don't use the word "subsidy"; I use the word "investment". When you look at government policy and the reason the federal government brought in the \$1.5 billion ecoENERGY for biofuels program, it was driven in part not to subsidize the industry, but to create a competitive environment in which we could attract the necessary capital to build the production here. We could just as easily have moved ahead in a mandated market in Canada and have the biofuel find its way from Brazil and the United States and elsewhere, and not have the value-added production that rural communities are now experiencing with the plants that are operating, and those planned to go ahead in the near term. The government saw the need and wanted to create a level playing field, a competitive environment in which that private capital could find its way into the marketplace.

As I alluded to in my presentation, you're looking at between \$1.5 billion and \$2 billion of private investment in the industry beyond the federal program that exists, which will sunset in the next eight years. It's a one-time program; it has a nine-year shelf life, of which seven years of payment to qualified projects will exist, and then that program will sunset.

When you look at the economic return on that industry, when it's built to its fruition of \$600 million a year, I think one would argue that's a good return on the taxpayers' investment in our industry, which we will provide going forward.

And again, over time, what is most important to the industry is the issue of market access. The mandate over time creates that opportunity for us that ultimately is more valuable to the industry over the long term.

[Translation]

**Mr. André Bellavance:** In your presentation, you mentioned the importance of moving to second generation biofuels. On this committee, we have often heard testimony from yourself, from

biorefinery operators, from researchers and scientists about second generation biofuels. We hear that they are in an early stage of development, the pilot project stage. Just this week, I was reading something about that.

I would like to know about the progress being made in this area; I would like to hear that we can now say when we will be able to produce second generation biofuels on a commercial scale. Perhaps you find it impossible to give me a very precise idea, but what forecasts have you made and what does the future look like? Can the use of cellulosic ethanol be profitable in the short or medium term? We hear about biomass from forest products and agricultural waste. Do you feel that that could be profitable any time soon?

[English]

**The Chair:** Very briefly. The time has expired.

**Mr. Jeff Passmore (Executive Vice-President, Iogen Corporation, Canadian Renewable Fuels Association):** Thank you for the question.

I could be brief and just say *court à moyen terme*, but I think the model for commercialization of next-generation cellulosic ethanol technology is large corporations collaborating with governments. I don't think you're going to see this technology commercialized through venture capital.

Canada is in the process of proceeding with that model of large government involved through Sustainable Development Technology Canada, the program Gord referred to that put in \$1.5 billion for first generation, and put in \$500 million for second-generation renewable fuels. That, combined with the technology company and our partner, Shell, will see this technology commercialized in the next two to three years, I hope, and the first commercial plant built.

• (1145)

**The Chair:** Thank you very much.

Mr. Allen, for seven minutes, sir.

**Mr. Malcolm Allen (Welland, NDP):** Thank you, Mr. Chair.

Thank you, gentlemen, for being here.

I'll go back to Mr. Bellavance's question and bring some more clarity to it.

When we talk about second-generation biofuels and where we might be headed in the sense of the need, in some eyes, to move away from the first generation—which leads to the debate you tried to clarify about the issue of whether it affects food prices, because that is the debate—clearly you've articulated your position. But there are some on the other side of that equation, of course, who will articulate it from a different perspective, because the second generation obviously takes that argument away, in the sense that it wouldn't necessarily be easy to say that it increased the price of food when really what we are using is the byproduct of the food production, whether it be biomass, whether it be cellulosic, or whether it be the use of other materials that farmers have used. And farmers are ingenious folks who manage to be able to use the things they have, whether they're selling them to someone else or not.

Perhaps you could comment briefly as to where you see that headed in a more wholesome way, besides the fact that you're suggesting, Mr. Passmore, that some sort of government funding is needed to take us forward on that.

**Mr. Jeff Passmore:** First of all, let me distinguish between position and facts. It's not the CRFA's position that first-generation ethanol was not responsible for food prices going up. I think the facts bear that out. If you have any doubt about that, ask yourself why the price of rice went up, the same as the price of corn did, and not a single grain of rice is used to make first-generation ethanol.

The reason food prices went up was \$100-a-barrel oil, commodity speculation, and droughts in the Ukraine and Australia. I think the USDA argued that corn ethanol in the U.S. was probably responsible for about 4% of the reason for food prices going up.

The other thing is, for Heaven's sake, let's let farmers earn a decent income for a change.

**A voice:** Hear, hear!

**Mr. Jeff Passmore:** To the extent that ethanol is being derived from corn and allowing farmers to earn more money, that's a good thing. Take that nine billion gallons out of the market in the U.S. and replace it with gasoline, and suddenly there will be nine billion gallons worth of corn ethanol and corn product that these farmers don't have to sell.

Those are the facts on the issue of food versus fuel.

With respect to evolving to the next generation, it's important also to recognize that next-generation ethanol is going to build on the foundation that has been established by first-generation biofuels. We, meaning cellulose ethanol and second generation, don't have to convince car companies to warrant 10% ethanol. We don't have to convince oil companies to blend ethanol and sell it to consumers, and we don't have to convince consumers that they can pull up to the pump and confidently fill up with E10 blends of ethanol product. In other words, car companies, oil companies, and consumers all feel comfortable using the ethanol molecule. The molecule that we'll make in second generation is identical to the molecule we make in first generation.

However, to your question about the non-food portion, yes, we use agricultural residues rather than the food portion of the crop to derive our ethanol. The technology is complicated; it's not taking as short a time as we might like to get this product rolled out, but we're working together with government to help meet the government's objectives of commercialization of second-generation ethanol.

**Mr. Malcolm Allen:** I appreciate that.

Let me be clear: I'm not suggesting that drove the price of food up. I would suggest it was more the \$140 barrel of oil than anything else that brings things to market.

I don't think you'll find anybody here who would argue that we don't believe farmers should start to make a few more dollars than what they're entitled to. Most of us represent farmers and have farmers as neighbours or friends or family, in which case we're looking to continue that.

Perhaps we can keep focusing in on this aspect of second generation. Brazil is seen to be somewhat of a leader in the world when it comes to cellulosic ethanol, or that's the perception. It doesn't necessarily make it so. Again, it boils back to the perception about the food piece, which is the perception and not necessarily the reality, and you've articulated that quite well, Mr. Passmore.

Folks point to Brazil and say, "Why don't you just do it like they do it?" Perhaps I could get comment from anyone who wants to lead off on whether they truly are, or whether we are simply being asked to chase something. It's like a dog chasing its tail sometimes. Are we really doing that, or should we be doing something altogether different?

• (1150)

**Mr. Gordon Quaiattini:** Thank you, Mr. Allen, for the question.

There's been an attempt to look at Brazil. Brazil simply uses sugar cane as their feedstock. They're no further ahead—with respect to my colleagues in Brazil, with whom we work very closely—with regard to development of second-generation biofuel. They're simply using what is natural to their agriculture base as their feedstock.

In Canada, quite frankly, we're using what we're best at, which is corn and wheat on the ethanol side, and we use canola and soybeans here on the biodiesel side. I don't know that any one jurisdiction is ahead of the other with respect to the capacity to develop.

We have certainly made headway, even in first-generation fuels. Based again on the International Energy Agency report I made reference to, we have come a long way in innovation within even the first-generation technology of making ethanol. It's not a complicated process; it's a fermentation process. We've been making alcohol for a hundred years and longer.

We have the capacity on a commercial-scale side to take efficiencies out of these plants: recycling water, which we do very well in the production of ethanol; development of a secondary market out of ethanol production in distillers' grains, which is valued by the feed sector within Canada and elsewhere. We've certainly taken the model of first-generation ethanol and moved it along quite considerably in the last 20 or 25 years. We still have more to do.

As I said, based on this report, we're looking at that 55% greenhouse gas reduction benefit from first-generation ethanol being achieved in the next two to three years, because of the innovation just in first-generation; then as we transition, as Jeff said, we're looking to second-generation development, all of which provides a value-added opportunity for our farmers.

I don't envision a world in which we would completely replace the first-generation ethanol production that we have with second-generation. I think we would see further development take place that continues to provide farmers in this country the choice of the feedstock they can provide, both on the food side, absolutely, and certainly on the feed side with respect to the relationship with our livestock sector, and then ultimately on the renewable fuel side. We think that's a balanced and proper approach that we can take and that offers farmers these opportunities.

**The Chair:** Thank you.

Mr. Hoback, you have seven minutes.

**Mr. Randy Hoback (Prince Albert, CPC):** Thank you, Mr. Chair.

First of all, gentlemen, thank you all for coming today and for giving your information and testifying. It's always exciting to see this industry come forward. As a farmer, I get really excited when we start talking about the prospects of renewable fuels, and then biotechnology and alternative uses for my crops.

One thing is that as a farmer I always have to get my mindset changed. I've gone from the days when we were growing food to the days when we're growing starch, protein, and other raw ingredients for all sorts of products; it's not just food anymore. That's really positive for farmers and for the next generation of farmers, because all of a sudden we're going to see revenue being generated from different streams outside the food stream.

When we see surpluses such as we've seen, for example, in the U.S., where they had huge surpluses of corn and were dumping them around the world... That just killed my farm. It killed a lot of young farmers and erected a big barrier for farmers coming into this industry. If we can do other things with product and utilize it, it's a win-win for everybody in the agricultural sector and for rural Canada.

One thing I am disappointed with, and it may be because of my excitement that I'm disappointed, is that it seems to take so long. In 2006, we were thinking that this is coming. We had seen what was going on in the U.S., and everybody was excited with the plants being built here. But it seems that in Canada it is taking forever.

Why does it take such a long time? I'm sure there are probably good reasons, but maybe you could help us understand why it's taking so long, especially in both levels.

• (1155)

**Mr. Tim Haig (President and Chief Executive Officer, Biox Corporation, Canadian Renewable Fuels Association):** As the largest producer of biodiesel in Canada and people who wants to invest a great deal more into this economy in doing biodiesel, we are a non-food-inputs—i.e. second-generation—producer. It's a question of economic certainty. Investors have a really hard time getting their heads around what's going to happen.

To go back to the important part, as I see it as a producer Bill C-33 is when we can actually, to get to the earlier point, stop this—the word “investment” is the right word, while the word “subsidy” is the one that upsets me—stop this investment, because it starts to be that

demand will drive the price, and we would be priced off the feedstock.

When we go back to Brazil, there's an interesting point. They have a 25% mandate in every litre of gasoline sold. Guess what: ethanol and biodiesel have de-coupled, and they have set up the price. Now the pricing is priced off the feedstock. The feedstock happens to be sugar, which they had a lot of. The farmer gets the benefit exactly, and then your farmer's not jammed by the fact that we're priced off the petroleum end; we're priced off the feedstock. It has actually brought down the complex of energy.

This is the really important part about this: we have to separate the biofuels from the petroleum fuels aspect of things. Yes, we're selling liquid BTUs, but they have completely different inputs. It would be in everybody's interest, the petroleum producers' and everyone's, for the feedstock to be the driver of price. Then we might see a driving down of the prices. True, sometimes we might see them going up; however, it is really important for your constituents that mandatory inclusion to be driving the market price. That's when investors will come back to the table. Investors aren't anywhere right now, let's face it. But investors will come back to the renewable fuels table.

**Mr. Gordon Quaiattini:** Just very quickly to reiterate, as Tim said it's market access: that is the single biggest question mark that exists, to address your question about how much faster we can go. Let's be clear. We are building and opening plants. We are about to commission two new ethanol plants in Canada in the next 60 days. So the construction is happening; the investment continues to happen even, as Tim said, in a very difficult market.

To see the true potential to build out, ultimately it is a question of market access. It is securing the regulatory framework to implement the RFS. Both CPPI and the CRFA would agree that this work simply has not progressed in the timeframe we would have liked. Thus, one of our calls to action and hopefully the voice coming out of this committee directed toward the government is to see the process accelerated. As Peter has suggested, we are part of demonstration initiatives together, we have been part of consultations with key departments together; now it's just time to get the work done and create market certainty to have investment continue to take place.

**Mr. Peter Boag:** I'm certainly glad to hear my colleagues use the term “certainty”, because that's the call to action and the cry that our component of the industry has been desperate to see over the last number of months, going back to that 2006 notice of intent whereby we agreed at the time—Gord, your organization and ours—on the requirement for three years of regulatory certainty in order to be able to get moving and deliver an implementation approach and a schedule that was a win for government in their policy of objectives, a win for the biofuels producers, a win for refiners of petroleum products, and most importantly a win for consumers. We just haven't seen that certainty.

We've been sitting waiting for the call at CPPI for more than two years now to get down to some detailed regulatory design that would enable refiners to make the kinds of implementation decisions, the compliance path they're going to do, and ultimately make the investments they need to make in order to deliver on that investment. It just hasn't happened in that absence of regulatory certainty.

**Mr. Randy Hoback:** Peter, I guess my question on that is that you knew in 2006 that 2010 was the year. That was pretty solid. I think everybody understood that 2010 was the year that these things were going to happen. Why does it take you guys so long to ramp up?

**Mr. Peter Boag:** We knew of the government's general intent for 2010 as indicated in the notice of intent, but much of the compliance path determination by individual companies really depends on the details of regulatory design as they design and develop their own compliance path in order to meet that mandate.

I guess it's the cliché: the devil is in the details. Firms are not going to be able to make the kinds of investments and cannot make the decision to lay out scarce investment dollars, particularly in this environment, without a higher level of regulatory certainty than was included in the notice of intent. To do otherwise runs the risk of stranding investments that guess regulatory outcomes. That's the answer.

• (1200)

**Mr. Tony Macerollo (Vice-President, Public and Government Relations, Canadian Petroleum Products Institute):** If I may add, I'll give you a very practical example of information we're only finding out about now.

We've recently been informed by Environment Canada that if you are a refiner who has a marketing presence in another province but not significant enough that you would be contracting out your blending to another provider, the refiner who is obligated doesn't get the credit for that. It's a pretty significant piece of information in terms of the kinds of investment decisions you're going to take when in fact you're regulating under a law that is founded upon the criminal powers of the federal government, where you're either guilty or innocent, not simply a regulatory deviation.

So these details are very important. It has a different impact on refiners with a national imprint versus a regional imprint, and the devil in the details that my president is referring to is very significant. I'm giving you one example of something that we've only found out in the last 30 days.

**The Chair:** Thank you very much.

Mr. Easter for five minutes.

**Hon. Wayne Easter (Malpeque, Lib.):** Thank you, Mr. Chair.

I really appreciate the fact that you came with presentations translated. You're doing a heck of a lot better than the minister. With three weeks' notice, he couldn't come before a parliamentary committee with translated documents.

**Mr. Randy Hoback:** You're in committee here, Wayne, so don't waste their time.

**Hon. Wayne Easter:** It's a fact. We're not wasting their time. You're interrupting.

**The Chair:** Order, order.

**Hon. Wayne Easter:** That's a fact. We have a minister who cannot appear before this committee and come prepared.

Now, with regard to the first set of witnesses, Gordon, how much impact will lower petroleum prices have on the ethanol industry? The trigger to feedstock into the ethanol industry and to have them profitable is really what the price of that feedstock will be, so for us in the agricultural arena it's a catch-22. If you're in the ethanol industry, low prices are certainly going to hurt you. It's been seen to hurt a lot of operations in the United States, which have a more cooperative style than they have in Canada. On the other side, if prices are low, the primary producer is taking the hit. So how much impact do petroleum prices have on the ethanol industry in total?

**Mr. Gordon Quaiattini:** As Tim alluded to, Mr. Easter, it has a significant impact. I mean, it is the fact that we haven't seen that decoupling of price between ethanol and petroleum taking place, because the market we are talking about, when we talk about a 9 billion, 10 billion, 10.5 billion gallon market in the United States, is relatively small. On a global basis we're less than 5% of the global transportation fuel pool.

In a world in which we continue to be linked, your description is a very accurate one. In a world in which ethanol producers three or four years ago could look at a stable price of corn at \$2, which we all agree they could not make money on, and then depending on the fluctuation of the price of petroleum, determine the profitability of ethanol producers....

Because we had the stability of feedstock pricing, last year became a very interesting year, obviously, for the industry. We saw corn as high as \$8 a bushel. We saw hedge funds in the United States controlling upwards of 60% of the entire wheat market, and it distorted quite dramatically the whole pricing mechanism. It's only now in the sort of sober second thought world of that price speculation and price spike coming down that we can look statistically at what our world can look like going forward, because the price of corn right now is upward in the \$3.60 to \$4 a bushel range, where we suspect it will stay for some time.

It's the size of the market over time of biofuels expanding that will ultimately get us to that price decoupling. When we can see that happening it will make it a little bit more predictable for producers.

• (1205)

**Hon. Wayne Easter:** I want to turn to the Canadian Petroleum Products Institute, but this is for you to think about in the meantime. In terms of the research and development into bioproducts as feedstock, which is a real concern, especially for the hog industry, where are we at?

This is for both Peter and Tony. Peter, you talked about the great concern about the absence of regulatory contracts, and Tony, you mentioned this new development coming out of Environment Canada. Why are we having a patchwork quilt?

The government has made lots of announcements on ethanol. They are great at making announcements, no question. But they're not great on a national vision, and of course they're opposed to regulation. The problem, as I see it, is that even at the central level you have Environment Canada doing one thing, Agriculture Canada doing another, industry doing another. This town operates in silos, and that's not a partisan comment. Whatever government is in power, it works in silos that way.

Is that part of the problem in terms of our getting to where we have to go in a straightforward fashion, so that you have the certainty and can make decisions on your end of the equation?

**Mr. Tony Macerollo:** Mr. Easter, you quite rightly described the city of Ottawa, but I'll offer a couple of observations.

This has an agricultural dimension to it. It has an energy dimension to it. It has a climate change dimension to it. It has an air quality dimension to it. And there's no shortage of debate, not just within Canada but around the world.

I can't give you the specific reasons for why we were not able to engage with Environment Canada officials as the NOI intended back in 2007, so that we could be ready for 2010. I can tell you, though, that we are busy with Environment Canada on air quality intentions and climate change intentions. They're a very busy department, and I'm not in a position to suggest which priorities officials should be working on there. I do know that they've been professional, just not as timely as we would have liked.

It is the responsibility of Environment Canada to develop the regulations, because the Canadian Environmental Protection Act is the enabling legislation under which regulations are going to be developed.

There's another element to regulatory design that is going to be needed, and that's in respect of section 147 of CEPA, which prescribes the circumstances under which waivers may be needed on a going-forward basis, as we frankly complicate the fuel supply system in this country. But I don't fault any particular department. I don't think it's because of a lack of interdepartmental cooperation. I think it's a function of a very heavy agenda at Environment Canada.

**Mr. Brian Storseth (Westlock—St. Paul, CPC):** On a point of order, Mr. Chair, I'd just like to set the record straight, as many members weren't at the subcommittee meeting last night. The facts are that the minister offered Mr. Easter a translated version at a later date. Mr. Easter declined.

The second fact is that Mr. Easter argued for more time with the minister and then proceeded halfway through his second round to say he had no more questions for the minister.

I think it's important that the facts are set straight.

**The Chair:** Mr. Lemieux, five minutes.

**Hon. Wayne Easter:** Mr. Chair, on that point of order—

**The Chair:** Is it a point of order?

**Hon. Wayne Easter:** Yes, it is. I don't like misinformation being tabled with the committee. I said I had lots of questions, but—

**Mr. Randy Hoback:** Wayne, you're the one who started it.

**The Chair:** Nothing Mr. Storseth said was misinformation.

Mr. Lemieux.

**An hon. member:** Mr. Storseth, thank you for that clarification.

**Hon. Wayne Easter:** Mr. Chair, you just said nothing that Mr. Storseth said was misinformation. There was. Go to the record and look. You cannot make that kind of judgment, Mr. Chair.

• (1210)

**The Chair:** I can if I believe it to be true, and I think what he just pointed out—

**Hon. Wayne Easter:** Well, you go to the record and look, and apologize to me next week.

**The Chair:** Fine.

Mr. Lemieux, five minutes.

**Mr. Pierre Lemieux (Glengarry—Prescott—Russell, CPC):** Thank you very much, Chair.

First of all, thank you for your presentations today.

I think there are some really good aspects to what we're discussing today. The first is that I think this is good for farmers. The farming sector is a big user of fossil fuels, and if we can put pressure to bring the cost of fossil fuels down, that's beneficial to farmers. That's a big input for them.

It's also beneficial to Canadians. We spoke about the environmental side, the air quality side, and the economy side. It's good for our environment as well.

I want to ask a question about first generation and second generation. Right now, first generation is quite marketable. However, second generation is where we move away from grains into agricultural residues, perennial crops, etc. I'd like to get a sense from you as to where we are in the timeline, the transition from the first generation being marketable here in Canada—because that's where it concerns us most—to the second generation being marketable here in Canada.

**Mr. Jeff Passmore:** As many of you may know, Iogen Corporation has a demonstration plant here in Ottawa.

By the way, Mr. Chair, any members of the committee are more than welcome to come out for a tour. It is the largest and only operating cellulose-to-ethanol demonstration plant in the world. We've been making fuel since 2004. We fuel, for example, Government of Canada fleets. We have our own E85 fleet that we run.

It's amazing to me every day. I drove here today in a cellulose E85-powered Chevy Impala. I'm always amazed that the fuel I drive my car on came from straw.

There are complicated scale-up questions and cost questions associated with going from demo to commercial. Where are we on the time scale? It is our hope that we can come to a final investment decision towards the end of this year or early 2010, and then there would be a two-year construction period. So we'd be looking at some time in the spring or summer of 2012, if we can meet that January 2010 investment decision hurdle. By 2012, we would be looking at the first commercial plant.

**Mr. Pierre Lemieux:** Mr. Haig.

**Mr. Tim Haig:** BIOX is currently a second-generation plant. We use agricultural residues. To Mr. Easter's point, we actually are using pork byproducts as the fats. The things that are not edible we turn into fuel and put in people's cars. So we're already there.

We're looking to build some more. We have some locations in Hamilton, and another in place in Montreal, one in Quebec City, one in B.C., and one in Alberta that we are actively looking at.

It is about getting the certainty. Speaking to Mr. Boag's point, we actually agree on the political certainty; we just don't agree on the timing difference that is required. The great thing about democracy is that we're allowed to agree on—

**Mr. Pierre Lemieux:** So what's your point of view on that?

**Mr. Tim Haig:** Our point is that we are there now in biodiesel. The next big breakthrough in biodiesel will be algae, of which 50% by weight is fat. Fat is what you make biodiesel out of. Algae is being researched. We're heavily involved in research into algae and the separation of the fat. I think you're going to find some big breakthroughs as far as that's concerned, and it will add a lot.

**Mr. Pierre Lemieux:** Right, but what I'm interested in is when it will be marketable in a large way.

We're still opening first-generation plants. I've been to the announcements on large first-generation plants. I'm asking your opinion: When do you see second-generation plants being widespread across the economic landscape here in Canada and an actual transition of most of the market to second-generation renewable fuels?

**Mr. Jeff Passmore:** He can do biodiesel, and I'll try the one on cellulose.

If you're talking about wide-scale distribution on the ethanol side of cellulosic biomass-derived ethanol, I think large-scale distribution is post-2015.

**Mr. Pierre Lemieux:** That's good. Thank you.

**Mr. Tim Haig:** As for biodiesel, I think we could do that. We're already there. Of the 120 million litres in Canada, almost 100 million litres of it is second generation.

We're already there to some extent. We just need to move the market forward.

**Mr. Pierre Lemieux:** I understand.

**Mr. Jeff Passmore:** I'd like to comment about Canada.

They're much more aggressive in terms of at least the targets they've set, and whether they achieve them is a different matter, but they have established targets in the United States for 16 billion

gallons. That's a substantial number. It's actually one and a half times Canada's total gasoline consumption.

So the target is 16 billion gallons of cellulosic ethanol in the market in the U.S. by 2022, but scaling up from 2010. They're starting with 100 million gallons in 2010, 250 million gallons in 2011, and gradually the curve gets steeper until they hit 16 billion gallons by 2022.

• (1215)

**The Chair:** Thank you very much.

Your time is up, Mr. Lemieux.

Madam Bonsant.

[Translation]

**Ms. France Bonsant (Compton—Stanstead, BQ):** Thank you, Mr. Chair.

I am trying to understand but I am anything but a biologist. You bring corn to a company. Is this a kind of refinery like we see for oil? Is that what it is? Okay, I see that all over. Do you negotiate directly with farmers to buy corn by the bushel?

[English]

**Mr. Gordon Quaiattini:** Yes, Madam Bonsant, I can answer the question. Yes, these are biorefineries. Looking at the production of ethanol, it is only the starch portion of the grain that is used in the production of ethanol. The nutrients and vitamins portion is extracted out of the production process. That becomes the distiller grain, which then finds its way back into the agriculture sector as an animal feed. That's the most valuable part for farmers in terms of the concentration of those vitamins and nutrients in the distiller grain. It's only the starch portion that finds itself in the ethanol production.

[Translation]

**Ms. France Bonsant:** Why corn? Why not canola oil, olive oil or things like that? When oil is \$150 a barrel, there are always inventors who will come up with things. In my riding, there is a gentleman who invented a car that runs on used french fry oil. It is not corn oil, it is olive oil mixed with other ingredients.

[English]

**Mr. Gordon Quaiattini:** I'll answer your other question first. Again, on corn used, I forgot to answer your second question, which was about whether our plants contract directly with farmers. Yes, they do. There's a variety of contractual arrangements they can make to supply their grains directly to the ethanol plants.

We're talking about two different biofuels. When you talk about corn, that's used in the production of ethanol. When you talk about canola or oil-based oilseeds, you're talking about the production of biodiesel. It's simply a different fuel.

Tim, you might want to comment.

**Mr. Tim Haig:** Simply put, ethanol, in Canada anyway, is cars. Diesel, or biodiesel, is buses and trucks. I'm not eating ethanol's lunch and they're not eating our lunch with regard to that. It's just two different fuels. For your fats that are made into the biodiesel a car runs on, that's a diesel engine, and that's what we do. The starch portion of corn would go into gasoline. They're very different platforms.

[Translation]

**Ms. France Bonsant:** In some years, corn is diseased; it has a kind of worm or something like that. Can it still be used? I know that the bugs do not get into the corn, but is the corn still of the same quality when it comes to making ethanol?

[English]

**Mr. Gordon Quaiattini:** Yes, it is. On the corn side, again, we can differentiate between corn grown for food consumption and corn used for feed consumption. The corn they use in ethanol production in North America is referred to as yellow dent corn. It's feed-based corn. This isn't a corn that you would find on the food side. That corn, again, is industrial-use corn, on the feedstock side for animal feed, and in the case of ethanol production. It's a different variety and a different quality of corn.

[Translation]

**Ms. France Bonsant:** Can ethanol be put into jet fuel? We hear a lot about cars and about diesel, but can ethanol be added to jet fuel?

[English]

**Mr. Tim Haig:** No. A jet engine is more like a diesel engine. There are some biodiesel applications in jet. One of the most recent was the New Zealand airline, I think, that flew jet biodiesel. It's the biodiesel application that would find its way more into jet, but it's not likely to be that application. It would be more likely to be road use and transportation use than jet use—for a bunch of complications that Mr. Boag would get into.

The jet portion is out of the diesel or distillate portion of a barrel. A barrel breaks down to about a third diesel and about a third gasoline. As for the rest, it's bitumen at the bottom and sort of vapours on the top, but I know I have those slightly wrong.

They're different portions altogether and they're different markets. That's what these guys do very well.

• (1220)

[Translation]

**Ms. France Bonsant:** We know that aircraft are heavy polluters. We want to reduce greenhouse gas emissions from trucks and cars, but is anyone studying how to reduce emissions from airplanes at the moment?

[English]

**Mr. Peter Boag:** There's a lot of work going on in a lot of different avenues of looking at the potential for biofuels to drive higher environmental performance. That's happening in road transport, it's happening in marine transport, and it's happening in air transport. I think most recently some activity has been sponsored by the International Civil Aviation Organization, working with the aviation community to look at the future potential for biofuels in an aviation application.

So yes, there's lots of research and lots of investigation going on. Much of that will continue for some period of time, because there's a lot of dialogue and debate on those kinds of performance implications.

[Translation]

**Ms. France Bonsant:** The government was asking for gas to contain at least 5% ethanol.

[English]

**The Chair:** Sorry, you're out of time. We have to move on to Mr. Shipley.

[Translation]

**Ms. France Bonsant:** Sorry, but you were not paying attention; it is too late.

[English]

**The Chair:** You were actually well over even before they answered.

[Translation]

**Ms. France Bonsant:** Next time, put your BlackBerry down, Mr. Chair.

[English]

**Voices:** Oh, oh!

**An hon. member:** Right on.

**Mr. Bev Shipley (Lambton—Kent—Middlesex, CPC):** Touché.

Thank you, Mr. Chair.

Thank you to the witnesses for coming in.

In terms of renewable fuels, we'd sort of had an understanding, from a round table we'd had with some agriculture folks, about the renewable fuel issue of the cellulose, the refuse.

Are you familiar with studies that have been done through Agriculture Canada—or other organizations that I'm not sure of—in terms of the impact that might have as you remove the refuse, or a certain amount of it, working in collaboration, I guess, with these organizations? What negative impact is there, if there is any, in terms of soil degradation?

**Mr. Jeff Passmore:** Actually, you probably should ask the fellow sitting immediately to your left. He'll have the answer as well as I have.

Fundamentally, we would never intend to remove.... For example, in western Canada you have clay soil zones in the southern part, brown soil zones as you head north, and then black soil zones that run from Brandon up through Saskatoon and off through Edmonton and up toward the northwest.

Those are the areas where one is looking at removing straw, where farmers actually have a problem getting rid of the straw. Plowing it back under is sometimes not the best answer. Indeed, farmers are trying to move more and more toward so-called low-till or no-till agriculture, where they actually don't have to plow it back under and can save fuel that way.

Furthermore, we don't pretend to know more about land husbandry than farmers do. For example, we would go to you as a farmer, or indeed the 600 farmers.... Going back to Madam Bonsant's question, about whether we contract directly with suppliers, it's the same in the cellulosic ethanol industry. We have contracts with 600 farmers to supply us with straw.

What we found out was that in a given straw basin, about 50% of the farmers want to part with about 50% of their material. We're removing about 25% of the material in any straw basin. The rest is there for soil nutrient value.

**Mr. Bev Shipley:** I'm from Ontario, and there are different soil types there that would be impacted differently by the amount—more so, likely, from our perspective, on the corn side.

Mr. Haig, you raised the issue around algae as the next generation. I find that quite an interesting one. Actually, I've had some conversations around how that might actually impact particularly the livestock industry. Maybe you can help me understand whether there's been any research and where you're at with that, especially with large operations that have a great source of manure in liquid tanks.

Is there any option in which that product as an algae can be grown, or harvested, or left remaining with the product in the tank of a liquid that now doesn't have...or that has grown it but still has the nutrients, in fact, to be a fertilizer resource? Is there anything in the books on that?

• (1225)

**Mr. Tim Haig:** It's unbelievable matter. In fact, clean coal has one of the biggest applications of algae. They want to take flue gases, bubble it through algae beds, and clean up coal. Flue gases clean it up probably by 40% to 50% on the GHG. So that's huge.

When you're talking about manure waste, though, sir, you're going back to.... We're not professing that it's only going to be ethanol and biodiesel getting in the fuel pool. Another one is methanol. One of the highest and best uses of manure—I grew up on a dairy farm—is methane, turning it into methanol, and putting it in your car and your flex-fuel vehicles too. So it's probably the better use as far as that goes.

Again, we're mixing the two platforms. The diesel platform is really about the 50% algae. The balance, interestingly enough, is proteins and some starch. The starch could make its way back into the ethanol program and the proteins would make it back into feed.

So there's a huge application of this, and I'm very encouraged. We're spending a lot on it. It's very encouraging.

**Mr. Bev Shipley:** I know of one where that's sort of been the case.

I'm intrigued by the comment about the bio-economy, especially the kinds of biomass, other than for feedstock, that will be used for plastics, chemicals, and pharmaceuticals. I think that is an incredible growth area. I'm interested to know where that is in terms of agriculture.

**Mr. Tim Haig:** I think it's the idea of cellulose; the remaining lignin that's left is put into fibre boards.

It's interesting. In 1970, one of the sheiks said that petroleum is far too valuable to burn because of all the things you could do with it. In fact biodiesel and renewable fuels are the same. We're making a carbon chain that could go into whatever; the applications are endless once you make these carbon chains.

**Mr. Jeff Passmore:** I promise not to give you a long lesson in chemistry, but once you've taken the cellulose out of straw and turned it into glucose, i.e., sugar, you don't have to ferment and distill it to make alcohol; you can turn it into polymers to make plastics. That's the bio-economy we're talking about.

**The Chair:** Thank you very much.

The committee has some business we have to tend to.

I'd like to thank all of you for coming today. I think you've been very informative.

**Mr. Gordon Quaiattini:** Mr. Chairman, there was a request for some information. If, through your clerk, there's anything else the committee was looking for from the association, we'd be more than happy to provide it.

**The Chair:** We'd appreciate if you would get that to the clerk. Thanks again.

For the committee, we have a budget motion that was passed at the subcommittee on food safety yesterday. That motion has to be ratified by the main committee.

Would somebody care to read the motion so that we can move it?

**Hon. Wayne Easter:** You're talking about the budget, right?

**The Chair:** Yes.

Is somebody willing to move the motion?

**Hon. Wayne Easter:** I'm willing to move it.

I move that the budget of \$102,800 for the Subcommittee on Food Safety be passed.

**The Chair:** Thank you very much.

(Motion agreed to) [See *Minutes of Proceedings*]

**The Chair:** Is there another motion, or notice of motion?

**Mr. Pierre Lemieux:** Where are we?

**The Chair:** We just dealt with the motion for the subcommittee.

**Hon. Wayne Easter:** We increased the amount to \$202,000.

**Mr. Pierre Lemieux:** That was on the budget?

**Hon. Wayne Easter:** Yes, it's done.

**Mr. Pierre Lemieux:** Were we not in a recess for ten minutes, Mr. Chair?

**The Chair:** There was no recess.

**Mr. Pierre Lemieux:** Oh, for heaven's sake. Well, we can always amend it later, if we need to.

**An hon. member:** What the hell?

• (1230)

**The Chair:** I'm always getting the point that we're very pressed for time here.



**Mr. Pierre Lemieux:** Mr. Chair, I would like to put forward a notice of motion.

Given the discussion we had at the last meeting, I'm going to seek the unanimous consent of the committee. Maybe we can deal with this motion today, and I'll explain why. I know I need unanimous consent.

Do I have consent to hand this out so you can read it?

This is moving Mr. Easter's previous motion about wanting to pursue the COOL investigation further forward. Mr. Easter's motion was to bring U.S. officials here. However, I think we could gain a lot more by going there. We will have better access to more people, and I think we'll be able to make our point quite forcefully in Washington.

I'll read it, Mr. Chair. Although I've handed it out, I'd like to get it on the record. My motion reads:

That due to the impact Country of Origin Labelling is having on the Canadian livestock sector, the Standing Committee on Agriculture and Agri-Food should travel to Washington to meet with U.S. decision-makers, legislators and stakeholders.

The reason I'm asking for unanimous consent is so that we can discuss and perhaps even vote on it today. I think we'll probably find we're in favour of this, given how much we want to help the livestock sector. Secondly, the sooner we're able to organize this, the better. We have a break week coming up, and that might be an opportune time to go.

**Mr. Randy Hoback:** No.

**Mr. Pierre Lemieux:** Well, maybe it's not, but I'm just saying the sooner we go, Chair, the better. Particularly given that this is a very pertinent subject, the more time we're able to give to the clerk to make necessary arrangements, the better. So you might want to see if we do have unanimous consent to discuss this.

**The Chair:** Just so everyone is clear, I did indicate to Mr. Bellavance when I came in that I have to be in the House shortly, and I was going to ask him to take the chair.

Is there unanimous consent to deal with it today?

**Some hon. members:** Yes.

**The Chair:** All in favour of the motion?

Mr. Easter.

**Hon. Wayne Easter:** This is just for clarification, Mr. Chair.

The previous motion we passed. I do believe, though, that we still need to request the U.S. embassy, if we can, to come before the committee—and our officials as well—because it is a committee with presentations on the record, and therefore that's important. I agree 100% with this motion, and it is important that we do it fairly urgently on this issue.

**The Chair:** Mr. Bellavance.

[*Translation*]

**Mr. André Bellavance:** I was a member of the agriculture committee—I cannot longer remember exactly which year any more—and we went to the United States, to Washington, to talk about

this. We had a very busy day and all we talked about was country of origin labelling.

It seems to me that the way in which it is presented is vague. Given the cost of committee travel, I would like to have other things to discuss with American parliamentarians.

When we went before, we had a briefing session with someone from the American department of agriculture. We met Ambassador Michael Wilson. We were still on a mission, though, which I was not able to finish myself. But those who stayed the next day obtained good information and had interesting meetings and discussions.

This motion, saying that we are going to travel and talk about something or other, may be a bit hasty in the sense that we have asked people to come to the committee to talk about the same things. If we go to the United States to talk about them, I would find it a little...

In other words, I do not disagree with the spirit of the motion, but I would like us to fine-tune it. It also seems to have come up a little suddenly today.

[*English*]

**The Chair:** Just on your comments, Mr. Bellavance, because it will take some time to actually get this organized, it sounds already as if the break week isn't going to work. I know it wouldn't work for me because I'm already committed. So what I'm saying, I guess, is that I think there's lots of opportunity to have that discussion and add to it. I'm not speaking for the committee or my government, but personally I think what you're saying makes sense, to do as much as we possibly can while we're there.

Mr. Lemieux.

**Mr. Pierre Lemieux:** Thank you, Chair.

First of all, on the travel dates, we'll have to decide upon that as a committee. I just threw that out there; obviously there's more discussion required.

To answer Mr. Easter's comment about his motion, we voted on it; it stands, absolutely. We should have the U.S. embassy officials in front of the committee. I think that's advantageous to us as a committee. In fact, before we go down to the United States, I would say that would be advantageous.

To Monsieur Bellavance's comments, Chair, COOL is a driving issue right now in the red meat sector. One of the concerns I have is that if we broaden the meetings, we in fact lessen our focus. I think we should be focused on COOL and the impact on our red meat sector. If we're going to go down and talk about a whole range of subjects, then COOL becomes one of many subjects we are there to discuss.

We've had the red meat sector in front of us. I've been out doing round tables, as I mentioned, as has the minister. We're receiving very clear signals that the red meat sector is being definitely impacted. I think we should focus our efforts. We're there to talk business. We're there to talk about COOL. Other subjects? We can discuss that later if you want to tackle it later, but I just don't want to dilute the intensity and the importance of COOL when we're down there.

Thank you.

●(1235)

[*Translation*]

**The Vice-Chair (Mr. André Bellavance):** Are there any more comments? Are we ready to vote?

(Motion agreed to.)

**The Vice-Chair (Mr. André Bellavance):** We have passed the budget, we have done everything else, so we will meet again at the next meeting.

This meeting is adjourned.

---







**Published under the authority of the Speaker of the House of Commons**

**Publié en conformité de l'autorité du Président de la Chambre des communes**

**Also available on the Parliament of Canada Web Site at the following address:  
Aussi disponible sur le site Web du Parlement du Canada à l'adresse suivante :  
<http://www.parl.gc.ca>**

---

**The Speaker of the House hereby grants permission to reproduce this document, in whole or in part, for use in schools and for other purposes such as private study, research, criticism, review or newspaper summary. Any commercial or other use or reproduction of this publication requires the express prior written authorization of the Speaker of the House of Commons.**

**Le Président de la Chambre des communes accorde, par la présente, l'autorisation de reproduire la totalité ou une partie de ce document à des fins éducatives et à des fins d'étude privée, de recherche, de critique, de compte rendu ou en vue d'en préparer un résumé de journal. Toute reproduction de ce document à des fins commerciales ou autres nécessite l'obtention au préalable d'une autorisation écrite du Président.**