



New Challenges, Issues -- What's at Stake in the area of Food Safety in Quebec?

CropLife Canada's Response to the consultations by the
Commission on Agriculture, Food and Fisheries,
Quebec National Assembly

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Appendix 1

EXECUTIVE SUMMARY

CropLife Canada is the trade association representing the developers, manufacturers and distributors of plant science innovations – pest control products and plant biotechnology – for use in agriculture, urban and public health settings.

CropLife Canada has a direct interest in the Commission's questions regarding contributions to food safety, the current system in place to protect food safety and in particular the safety of GMOs. In addition, CropLife Canada has an interest in the traceability of food and crops throughout the system, and future developments in food product labelling.

THE BIOTECHNOLOGY AND AGRI-FOOD INDUSTRIES IN QUEBEC AND CANADA – HIGHLIGHTS

There is no question of the value of the agri-food industry to Quebec's and Canada's economy and the contribution that the sector makes to Gross Domestic Product, employment, investment attraction and indirect job creation. There is also no question that the trend is for increasing consolidation within North America in the industry. With the U.S. as the major trading partner for the agri-food sector, care must be taken to ensure that Quebec's and Canada's policies and regulatory systems are synchronized with those in the U.S. to avoid non-tariff trade barriers or unnecessary disputes.

The biotechnology industry is also important to Quebec's economy. While the technology's importance extends to many sectors including agriculture, any policy changes that are negative to biotechnology could be interpreted as a disincentive to future biotechnology investment in the Province.

Biotechnology Industry

- Revenues in 2001 from 92 companies were more than \$1.5 billion in Quebec.
- Of the \$980 million of capital raised in Canada, Quebec raised \$467 million.
- Biotechnology R& D investment in Quebec for 2001 was \$349 million.
- In 2001, Quebec had 11, 072 products and processes at all stages of development compared to 18,020 in Canada.
- 31,054 worker are employed by biotechnology-related firms in Quebec compared to 62,242 in Canada overall with 4,710 of those working in highly-skilled positions compared to 11,897 nationally.

Agri-Food Industry Value to the Economy

- Comprises 8.4% of Canada's total Gross Domestic Product (GDP) in 2001.
- Bio-food exports from Quebec contribution from inter-provincial sales equal 38% of provincial GDP and 35% of jobs. International sales contribute 12% of GDP and 11% of jobs.

- In 2001, about 50% of Canada's primary production was exported either as bulk or as value-added goods, with value-added goods driving growth in the sector.
- Agriculture and agri-food trade is concentrated on the North American market. In 2002, exports to the U.S. and Mexico accounted for over 70% of Canada's total agriculture and agri-food export value, up from 40% in 1990. In 2003 66.1% of exports went to the U.S.

Innovation in Agricultural Production

- GM crops have a prominent place in agricultural innovation.
- In 2002 around 30% of total corn and soybean area in Ontario and Quebec was planted in GM crops.

FOOD SAFETY AND SAFETY OF GMOS

Many international experts note that there is no increased human health risk associated with GM foods.

- From an October 9, 2001 European Commission press release titled *Commission launches Round Table on GMO safety research*, "Research on GM plants and derived products so far developed and marketed, following usual risk assessment procedures, has not shown any new risks to human health or the environment, beyond the usual uncertainties of conventional plant breeding. Indeed, the use of more precise technology and the greater regulatory scrutiny probably make them even safer than conventional plants and foods."

http://europe.eu.int/rapid/start/cgi/questen.ksh?p_action.gettxt=gt&doc=IP/01/1391|0|RAPID&lg=EN&display=

INSPECTION OF FOOD PRODUCTS

Do you believe that the risk associated with GM foods is well managed?

- CropLife Canada supports a strong; science based regulatory system that is exemplified by the current Canadian regulatory framework. This science based regulatory system must have the independence to make safety and regulatory decisions based solely on a strong scientific foundation.
- The system remains a model for international consideration on how to regulate plants with novel traits and GM foods.
- The system has received significant scrutiny by independent scientific experts including the Royal Society of Canada and the Canadian Biotechnology Advisory Committee. Health Canada and the Canadian Food Inspection Agency are currently implementing suggested improvements to the system made by these bodies.

DISTRIBUTION SYSTEMS AND TRACEABILITY OF FOOD PRODUCTS

Do you believe that the lack of harmonization on shared responsibilities between all levels of governments can be harmful to the efficiency of the traceability system across the country?

The agri-food industry in Canada is adapting to accommodate different production systems, food industry requirements and consumers' tastes. There are examples of specific commodities that have successfully implemented Identity Preservation systems and trace-back mechanisms for certain crop varieties.

Given the importance of agri-food trade both inter-provincially, within North America, and internationally to the agri-food sector, CropLife Canada is supportive of a harmonized approach to traceability.

Do you think that Quebec should adopt a traceability system similar to the one in the European Union and what would be the cost to the industry?

The European Union's system of traceability, tolerance for GM material, and mandatory labelling has resulted in no genetically modified foods on market. Instead of providing for consumer and grower choice (not to mention R&D spending by EU based biotechnology developers) the system has resulted in no choice whatsoever.

CropLife Canada supports a voluntary system of labelling allowing for choice in production systems as well as end products and traceability systems to support both.

Do you see any advantages or drawbacks in adopting a traceability system different from the one in place elsewhere in Canada?

It is difficult to imagine how consumer confidence in the accountability of any traceability system would be enhanced if Quebec took a different path than the rest of Canada.

CropLife Canada supports continued work by all members of the agri-food chain to adopt traceability systems that can be cost effectively implemented both within Canada as well as on a North American basis.

FOOD PRODUCT LABELLING AND LABELLING OF GMOS

Do you think we should maintain the current GMO labelling standard (voluntary) or adopt a mandatory approach, similar to Europe?

CropLife Canada is supportive of providing both consumer and grower choice. This is why CropLife Canada voted in support of the *Standard for the Voluntary Labelling of Foods Obtained or Not Obtained Through Genetic Modification* through the process led by the Canadian General Standards Board.

CropLife Canada also supports the current Government of Canada requirement for mandatory labelling for changes in nutritional profile and allergenicity.

RECOMMENDATION

That before there is any further move to introduce mandatory labelling or a comprehensive traceability system; the Committee and the Government of Quebec initiate a thorough study examining the impacts of mandatory labelling including

- The impact on consumers and the potential to increase food costs.
- The impact on trade, especially of value-added products to our trading partners including the United States.
- The impact on inter-provincial trade.
- The impacts on farmers including added costs behind the farm gate.
- The impact on future investment in research and development in the biotechnology sector.
- The potential cost increases for Quebec based food and beverage manufacturers.
- The cost increases to the provincial and federal governments to ensure regulatory compliance.

INTRODUCING CROPLIFE CANADA

CropLife Canada is the trade association representing the developers, manufacturers and distributors of plant science innovations – pest control products and plant biotechnology – for use in agriculture, urban and public health settings.

CropLife stands for **safety** by protecting human health and the environment by putting stewardship*first*[™]; supporting a rigorous, science-based regulatory system; and contributing to an informed public.

CropLife Canada also stands for **innovation** by enhancing the quality of life through the benefits of our technology; pursuing continuous research; advocating integrated pest management and responsible use; and realizing competitive advantage through the use of these technologies.

**Please see Appendix 1 for a list of our members and their presence in the Province of Quebec.

OVERVIEW

The Commission on Agriculture, Fisheries and Food has issued a consultation document examining the new challenges, issues and what's at stake in the area of food safety in Quebec. CropLife Canada has a direct interest in the Commission's questions regarding contributions to food safety, the current system in place to protect food safety and in particular the safety of GMOs. In addition, CropLife Canada has an interest in the traceability of food and crops throughout the system, and future developments in food product labeling.

CropLife Canada spends the majority of its resources on the stewardship of plant science technologies through the agri-food chain as well as in active use in agricultural, forestry and urban applications.

In addition, CropLife Canada is supportive of maximizing safety in the system. Currently, Canada's food safety oversight is considered one of the best in the world. Consumer confidence in this system is enhanced by greater understanding of the science-based regulatory system that is in place before agricultural technologies including GMOs are used anywhere in Canada.

As we consider the questions raised by the Commission, the contribution of agricultural production to Quebec and Canada's economy and global trade must be taken into consideration before major changes are made to the system currently in place today. Since the Commission raises many questions regarding foods derived from genetically modified crops, we also recommend the economic and social contribution of the biotechnology industry be taken into consideration as well.

THE BIOTECHNOLOGY AND AGRI-FOOD INDUSTRIES IN QUEBEC AND CANADA

THE BIOTECHNOLOGY INDUSTRY IN QUEBEC

The biotechnology industry is robust in Quebec. BIOTECCanada, BIOQuebec and Statistics Canada offer the following facts on the size and performance of the biotechnology industry in Quebec:

- Revenues in 2001 from 92 companies were more than \$1.5 billion in Quebec;
- Of the \$980 million of capital raised in Canada, Quebec raised \$467 million;
- Biotechnology R& D investment in Quebec for 2001 was \$349 million;
- In 2001, Quebec had 11, 072 products and processes at all stages of development compared to 18,020 in Canada; and
- 31,054 worker are employed by biotechnology-related firms in Quebec compared to 62,242 in Canada overall with 4,710 of those working in highly skilled positions compared to 11,897 nationally.

The biotechnology industry is divided among human health, agriculture, food processing, bioinformatics, aquaculture, environment, and natural resources.

THE SOCIAL CONTRIBUTION OF AGRICULTURAL BIOTECHNOLOGY

The World Food Program recently reported that the number of people suffering from malnutrition increased by 25 million from 815 to 840 million. The most compelling case for biotechnology, and more specifically GM crops, is their capability to contribute to:

- Increasing crop productivity, and thus contribute to global food, feed and fiber security;
- Conserving biodiversity, as a land-saving technology capable of higher productivity;
- More efficient use of external inputs, for a more sustainable agriculture and environment;
- Increasing stability of production to lessen suffering during famines due to abiotic and biotic stresses; and
- To the improvement of economic and social benefits and the alleviation of abject poverty in developing countries.

Source: International Service for the Acquisition of Agri-Biotech Applications
<http://www.isaaa.org/> Global Status of GM Crops in 2003

CANADA'S WTO CHALLENGE REGARDING GMOs IN THE EU

- In August 2003 Canada formally requested the WTO to establish a dispute settlement panel to examine European Communities – Measures Affecting the Marketing and Approval of Biotech Products.

The measures covered in this panel request are:

1. The general suspension by the EC of its own processes for the consideration of applications for, and the granting of, approval for biotech products;
 2. The failure by the EC to consider or approve, without undue delay, applications for approval of certain products; and
 3. Certain national measures prohibiting the importation, marketing or sale of the specified EC-approved biotech products.
- Canada argued that "...these measures are inconsistent with the obligations of the EC under the SPS Agreement, the TBT Agreement, the Agreement on Agriculture and the GATT 1994."
 - Consideration is being given to a challenge of the EU's traceability system in both Canada and the U.S.

GROWERS' POSITIONS ON GMOs

The Union des producteurs agricoles (UPA) note that the decision to use GMOs depends on the desire to respond to consumers' needs and market conditions. UPA expresses the wish to have access to a wide range of tools to meet marketplace needs.

The UPA looks at the use of biotechnology in agriculture on a case-by-case basis depending on the application, and is reluctant to dismiss the use of GMOs in their entirety. This suggests a desire to continue to access the advantages that GMOs can bring to agricultural production. More recently, the UPA has expressed support for voluntary labelling and the science-based regulatory system.

Internationally, farmers are adopting GM crops in record numbers. According to a report released on January 13, 2004 by the International Service for the Acquisition of Agri-Biotech Applications (ISAAA),

- In 2003, the global area of transgenic crops continued to grow for the seventh consecutive year at a sustained double-digit growth rate of 15%;
- The absolute growth in GM crop area between 2002 and 2003 was almost the same in developing countries (4.4 million hectares) and industrial countries (4.6 million hectares), with the percentage growth more than twice as high (28%) in the developing countries of the South compared with the industrial countries of the North (11%); and
- Canada's GM crop area grew at a significant 26% between 2002 and 2003 to reach 4.4 million hectares with increases totaling almost 1 million hectares in the three crops, canola, maize and soybean.

Statistics Canada reported in December 2003 that Canadian grain corn production hit 9.6 million tonnes, a 7% increase from 2002. Favourable growing conditions in Ontario and Quebec boosted yields by 12%. Production increased in both Ontario and Quebec. Quebec farmers reported a record 3.5 million tonnes, a 13% improvement over the previous record set just in 2002.

<http://www.statcan.ca/Daily/English/031205/d031205b.htm>

In 2003, Bt corn, for example, was planted on 42.6% of the total Quebec corn acres by 70.1% of corn growers within the province (Corn Hybrid Brand Usage Study, Stratus Agri-Marketing, 2003). It is fair to conclude that a good proportion of the corn yield gains in Quebec were as a direct result of the use of corn genetically modified to incorporate the insecticide *Bacillus thuringiensis* (Bt).

The adoption of genetically modified crops demonstrates the value that growers get from these crops. Future developments in the pipeline include crops with enhanced nutritional benefits, environmental benefits such as drought and disease resistance, and crops with properties beneficial to food processing.

THE VALUE OF THE AGRIFOOD CHAIN TO QUEBEC'S AND CANADA'S ECONOMY

In addition to the information in the consultation document, certain facts about the value of the industry to Canada's and Quebec's economy must be considered.

The following statistics and highlights are drawn from Agriculture and Agri-Food Canada's June 2003 report *An Overview of the Canadian Agriculture and Agri-Food System*

http://www.agr.gc.ca/spb/rad-dra/publications/system/system_e.php

Economic Contribution Overall

- The agriculture and agri-food system plays an important role in the Canadian and the provincial economies, providing one in eight jobs in Canada and accounting for 8.4% of total Gross Domestic Product (GDP) in 2001.
- While primary agriculture is at the heart of the agriculture and agri-food system, the system is much more than just agricultural production. It encompasses processing and distribution activities as well. Food processing (which includes beverage and tobacco processing) is the second largest contributor to manufacturing GDP in Canada, while food retail is the second largest consumer good expenditure category, and foodservice the third largest consumer service expenditure category.
- All stages of the system are growing and are profitable, with value added production leading the growth. Since 1990 cattle and hog numbers have increased by 25% and 37% respectively, while the value of food processing shipments has increased by 56% to \$70 billion.
- Consumer-oriented products now make up one half of Canada's total agriculture and agri-food export value.

Exports are Essential to Agriculture's Growth

Quebec is a major exporter in the bio-food sector of the economy. According to the Agriculture and Agri-Food Canada study the *Impact of Bio-Food Industry Activities in Canada (2003)*, the study's authors stated:

"Comparing the figures in this section, we can see that the largest proportion of inter-provincial bio-food exports was in Quebec, followed by Ontario. The proportion of export-related GDP and jobs was multiplied by more than four in Quebec and by nearly three in Ontario when inter-provincial exports were added to the equation."

Impact of External Trade on Quebec Bio-Food Industry Activities, 2002

Inter-provincial Sales

GDP: 38%

JOBS: 35%

International Sales

GDP: 12%

JOBS: 11%

Source: http://ats.agr.ca/can/3589_e.htm#l

The Impact of Bio-Food Industry Activities in Canada; Raymond Dupuis, Agriculture and Agri-Food Canada and Maurice Doyon, Laval University

- Export opportunities are critical for the growth of most agriculture industries. The agri-food sector is export oriented. In 2001, about 50% of primary production was exported either as bulk or as value-added goods.
- Canada was the third largest exporter of agriculture and agri-food products in the world in 2001, after the U.S. and the EU15, with exports valued at \$26.6 billion. At the same time, Canada was the fifth largest importer of agriculture and agri-food products in the world with imports valued at \$19.2 billion.
- Agriculture and agri-food trade is concentrated on the North American market. In 2002, exports to the U.S. and Mexico accounted for over 70% of Canada's total agriculture and agri-food export value, up from 40% in 1990.
- The U.S. is a particularly important export destination for Canada's value added products, accounting for 80% of all such exports.
- Agriculture and agri-food exports have doubled over the past decade, with export of consumer-oriented products more than tripling during this time.
- Today, **consumer-oriented products now account for one half of all exports.** This compares to 1991 when consumer-oriented products accounted for less than one third of total exports.
- In 2001 grain and red meat producers earned around half of their cash receipts from the export market and oilseeds producers nearly 70% of their cash receipts.
- Grain and oilseed producers have always been very export dependent.

Employment Impact

- The agriculture and agri-food system plays a significant role in the Canadian economy in terms of employment and income. It provides, in direct employment opportunities, one in eight jobs.
- The system also indirectly generates employment in transportation, and other logistical economic sectors.
- In 2001, it accounted for 8.4% of total Canadian Gross Domestic Product (GDP). The overall system has been growing in size at a pace just under 2% per annum, which is less than that of the overall economy.
- In absolute terms, Ontario and Quebec have the largest number of people employed in the whole system.
- **In Quebec, the agriculture and agri-food system is calculated at 12.7% of total employment in the province.**
- **Quebec farm employment totaled 58,000 on some 32,000 farm operations.**

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Growth is From Value-Added Production and Increased Productivity

- Value-added production is leading the growth of the system. Individually, food retail is the fastest growing component with an annual average growth rate of 2.8% followed by input suppliers with an annual average growth rate of 2.4%.
- Livestock output and crop yields are increasing in response to genetic and biotechnology advances, and better management practices. For example, cattle carcass weights have increased 33% over the last 20 years, and average corn yields have increased by nearly 50% over the last 40 years.
- These higher yields, along with advances in technology and industry restructuring, are contributing to strong productivity growth in primary agriculture of 3% per annum. This productivity growth rate is on par with that for U.S. primary agriculture at 3.1% per annum.

Profitability and Investment in the Agri-Food Sector

- Profitability, along with North American integration and technology advances, are just some of the forces driving consolidation and investment in the agriculture and agri-food system.
- In the late 1990s, real investment in the agri-food sector increased in intensity relative to the early 1990s. Annual average investment in primary agriculture and in food processing grew by 15% and 10% respectively, between these two time periods.

Foreign Direct Investment is Increasing

- Investment is also focusing on the North American market. U.S. investment in Canadian food processing was valued at \$6.1 billion on a stock basis in 2001, accounting for 81% of total foreign direct investment in this industry, up from a 59% share in 1990.
- Foreign direct investment (FDI) is a critical source of capital for the growth of the agriculture and agri-food system. FDI benefits both the investing firm and the host country. FDI provides the investing firm with market access and allows it to achieve economies of scale. The host country benefits through technology transfer and increased competition, which can lower food costs for consumers.
- FDI in the Canadian agri-food chain more than doubled over the 1990s reaching close to \$24 billion in 1999.
- As the North American market becomes more integrated, FDI is occurring more and more within this market.
- The U.S.'s share of FDI in food processing, for example, has increased from just under 60% in 1990 to over 80% in 2001. This is probably an underestimation of the true importance of U.S. FDI in the agriculture and agri-food system because not all of the reinvestment that U.S. firms make in Canada shows up in official FDI statistics.

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The Importance of Product Innovation

- Product innovation is a well recognized competitive strategy by food processors.
- A Statistics Canada Innovation Survey found that between 1997 and 1999, 25% of food processors had more than 10 new product innovations, an additional 50% had up to 10 new product innovations and only 25% reported no new product innovations resulting in about 9,000 new products annually.
- The survey also found that among the food processing innovators, 11% reported that they earned over a quarter of their sales revenues from the new innovations.

Innovation on the Farm

- Innovation is occurring between agricultural products, not only by variety, and quality grade, but also by the production process used to grow them. More and more agricultural producers are differentiating their products through the adoption of different farming practices. This in turn is creating demand for different kinds of inputs.
- Crop seeds are a good example of an input facing different demands. Crop seeds today have been specially bred for more vigour and higher yield.
- Genetically modified (GM) seeds with their own built-in pest resistance and weed control capacity are becoming more popular overtime.
- **In 2003, 50% of total corn and soybean area in Ontario and Quebec was planted to GM crops.**

OUR ASSESSMENT OF THESE FACTS

There is no question of the value of the agri-food industry to Quebec's and Canada's economy and the contribution that the sector makes to Gross Domestic Product, employment, investment attraction and indirect job creation. There is also no question that the trend is for increasing consolidation within North America in the industry. With the U.S. as the major trading partner for the agri-food sector, care must be taken to ensure that Quebec's and Canada's policies and regulatory systems are synchronized with those in the U.S. to avoid non-tariff trade barriers or unnecessary disputes.

With growers adopting GM crops in record numbers, there is clearly a positive impact on agricultural productivity

The biotechnology industry is also important to Quebec's economy. While the technology's importance extends to many sectors including agriculture, any policy changes that are negative to biotechnology could be interpreted as a disincentive to future biotechnology investment in the Province.

FOOD SAFETY AND SAFETY OF GMOS

The Commission examined the many definitions of food safety presently in use internationally. CropLife Canada wishes to offer some views of international experts regarding the safety of genetically modified foods.

- In December 2002 France's Academy of Medicine called for European countries to end their moratorium on genetically-modified (GM) crops, saying it saw no evidence that these plants were a danger to health. The academy said in a report that GM crops and their derivatives had been grown and eaten for around a decade, especially in the United States, and "no particular health problem has been detected." GM food could be a boon for countries with fast-growing populations and marginal or shrinking farmland, it added. "GM use has been a generally positive experience," it said. The moratorium should be lifted, the report said, adding however the caveat that it was still essential to set up "permanent systems for evaluation and bio-vigilance."
http://www.isaaa.org/kc/CBTNews/2002_Issues/Dec/CBT_Dec_19.htm
or, <http://www.academie-sciences.fr/>
- "To this point, we have no evidence whatsoever that this technology presents any threats to consumer safety." February 13, 2002 *Food Chief Slams Misinformation on Food* – From a press release issued by the Australia New Zealand Food Authority (ANZFA) quoting its Managing Director Ian Lindenmayer. "I don't pretend that we have all the answers about GM foods, but we have enough to know that those we approve are at least as safe as their non-GM counterparts." Mr. Lindenmayer said GM foods had been in the world's food supply for more than a decade - without a single scientifically documented case of causing harm to a person.
<http://www.anzfa.gov.au/mediareleasespublications/mediareleases/mediareleases2002/mediastatementfoodch1337.cfm>
- U.K. Royal Society report of February 2002 – *Genetically modified plants for foods use and human health – an update* concluded the following on allergenicity of GM foods. "There is at present no evidence that GM foods cause allergic reactions." On consumption of genetically modified food the Royal Society said "Given the very long history of DNA consumption from a wide variety of sources, we conclude that such consumption poses no significant risk to human health, and that additional ingestion of GM DNA has no effect."
<http://131.104.232.6:3500/gmo/ukroysoc.pdf>
- On November 12 2001 at an OECD conference in Scotland leading representatives from industry, government, environmental groups, academia, opposition activists and consumers met to discuss the effect of GM food on health. They concluded with almost 50 approved GM foods in the marketplaces

in several countries, with GM crops grown on a hundred million acres in 1999, and with 300 million humans consuming GM food in North America alone, if there were any inherent danger with GM as a technology, it should be apparent by now. In spite of years of experience and searching for problems, no one could provide any verifiable data implicating GM technology as a food or health hazard. It seems that, while individual GM food products might prove hazardous, the technology or process itself is not inherently harmful.

<http://131.104.232.9/agnet/2000/3-2000/ag-03-01-00-02.txt>

- Food and Agriculture Organization of Rome, 2001
Genetic modification offers the opportunity to decrease or eliminate the protein allergens that occur naturally in specific foods. With the objective of assuring food safety, greater attention has been given to the potential risks of genetic modifications that may add allergens to the food supply.
<http://www.fao.org/docrep/003/x9800e/x9800e00.htm>
- From an October 9, 2001 European Commission press release titled *Commission launches Round Table on GMO safety research*, "Research on GM plants and derived products so far developed and marketed, following usual risk assessment procedures, has not shown any new risks to human health or the environment, beyond the usual uncertainties of conventional plant breeding. Indeed, the use of more precise technology and the greater regulatory scrutiny probably make them even safer than conventional plants and foods." This press release accompanies a report by the European Commission, the European Union's Executive Branch, summarizing 81 research projects financed by the EU over the last 15 years on genetically modified crops and products made from them.
http://europe.eu.int/rapid/start/cgi/questen.ksh?p_action.gettxt=gt&doc=IP/01/1391|0|RAPID&lq=EN&display=
- On February 27, 2002 Dr. Norman Borlaug, Nobel Peace Prize winner and father of the "green revolution" reiterated his support for GMO crops. At a forum in San Jose, Costa Rica, Dr. Borlaug again stressed, "Biotechnology is a continuation of the green revolution. The world must choose between two options: we either continue tearing down trees to plant fields or we develop better technologies for fighting pests and increasing productivity," said Borlaug in an interview with the IPS news service. "There does not exist sufficient scientific evidence to prove that genetically modified foods are harmful to humans." From *Pro Farmer*
<http://www.profarmer.com/>

The American Medical Association, the American Dietetic Association, the Institute of Food Technologies, the Society for In Vitro Biology and the Council for Agricultural Science and Technology have all issued statements supporting the safety and benefits of foods derived from biotechnology as well as the need for continued research.

American Medical Association - http://www.ama-assn.org/ama/pub/article/2036-4030.html#human_health

American Dietetic Association – <http://www.eatright.org/>

Society for In Vitro Biology - <http://www.sivb.org/>

Council for Agricultural Science and Technology (CAST) http://www.cast-science.org/pubs/ip19_nr.htm

- Over 3,000 scientists, including 3 Nobel laureates and the founder of Greenpeace, Patrick Moore, have signed onto a petition supporting the safety and usefulness of biotechnology in agriculture.
http://131.104.232.9/agnet/2002/6-2002/agnet_june_7-3.htm#GREENPEACE_FOUNDER
- In addition, the US National Academy of Sciences and its sister organizations in six countries issued a July 2000 report concluding that foods produced from biotechnology are safe and will be necessary in coming years to feed the world's growing nations.
<http://www4.nationalacademies.org/news.nsf/isbn/0309069300?OpenDocument>

INSPECTION OF FOOD PRODUCTS

The Commission raises several questions regarding the current system for food inspection. CropLife Canada wishes to address the following questions, noting that the Government of Canada regulates genetically modified crops.

Do you believe that the risk associated with GM foods is well managed?

- CropLife Canada supports a strong, science based regulatory system that is exemplified by the current Canadian regulatory framework. This science based regulatory system must have the independence to make safety and regulatory decisions based solely on a strong scientific foundation.
- The system remains a model for international consideration on how to regulate plants with novel traits and GM foods. The system has received significant scrutiny by independent scientific experts including the Royal Society of Canada and the Canadian Biotechnology Advisory Committee. Health Canada and the Canadian Food Inspection Agency are currently implementing suggested improvements to the system made by these bodies.

- In addition, CropLife Canada looks beyond the regulatory system through its industry-led **stewardshipfirst**[™] program to address the stewardship of our technology.

As part of this effort CropLife Canada and our members commit to the responsible introduction of biotech crops, with growers and markets in place prior to commercialization. This includes:

- Bringing relevant components of the value chain together in order to work proactively and cooperatively to address market access for biotech crops and to avoid market disruptions;
- The development of international standards with standardized testing and thresholds, which will maintain choice in the marketplace;
- Ensuring channeling systems are in place, as needed, (e.g. development of identity preservation or segregation production systems) to ensure co-existence of different production systems (including biotech and non-biotech) in order to maximize the benefits to society for a diverse and sustainable agriculture production system in Canada and globally and maintain choice for all farmers;
- Supporting a rigorous science based regulatory framework as the key pillar to assure the safety of biotech crops;
- Defending the science based regulatory approach and not compromising our legislation and regulation by introducing non-scientific factors, such as market access. This would only foster uncertainty and potential for conflict of interest; and
- Defending the agriculture industries right to buy, sell and market products, which have been approved for safety by the Government of Canada.

Source: CropLife Canada Market Access position paper #26 – Updated September 4, 2003 <http://www.croplife.ca/english/resourcecentre/bio-positionpapers-026.html>

DISTRIBUTION SYSTEMS AND TRACEABILITY OF FOOD PRODUCTS

The Commission raises several questions regarding the traceability of food products. CropLife Canada offers the following response to some of these questions.

Do you believe that the lack of harmonization on shared responsibilities between all levels of government can be harmful to the efficiency of the traceability system across the country?

The agri-food industry in Canada is adapting to accommodate different production systems, food industry requirements and consumers' tastes. There are examples of specific commodities that have successfully implemented Identity Preservation systems and trace-back mechanisms for certain crop varieties.

Given the importance of agri-food trade both inter-provincially, within North America, and internationally to the agri-food sector, CropLife Canada is supportive of a harmonized approach to traceability.

CropLife Canada supports the assessment of the challenges and the proposed path forward are best characterized in the Government of Canada's to the Standing Committee on Agriculture and Agri-Food Report Labelling of Genetically Modified Food and its Impact on Farmers excerpted below.
http://www.agr.gc.ca/cb/biotech/gm_e.phtml

Recommendation 3

The Committee recommends that the government assess the additional costs, particularly for farmers and consumers, of implementing segregation and tracking systems, which are necessary for the labelling of GM foods, and report to the Committee and the House of Commons.

Response

The Government [of Canada] agrees that both the Government and the agriculture and agri-food industry must understand the costs and benefits of investing in segregation and tracking systems given the increasing pressures to put such systems in place.

The Government believes that the development of a voluntary labelling standard, in combination with federal-provincial-territorial programs, which support industry-led cost assessments of traceability and identity preservation systems, is the best solution to addressing market issues and demands. **Industry's decision to label rests on a commercial assessment by each company as to whether investing in systems is wise based on buyers' requirements and willingness to pay. By their nature, these are complex, sub sector-specific**

assessments that need to be made on a company-by-company and a product-by-product basis, and governments are not well placed to make them.

Acknowledging this, Federal, Provincial and Territorial Ministers of Agriculture noted the importance of providing support for investment in such systems, and agreed in the *Framework Agreement on Agricultural and Agri-Food Policy for the 21st Century* (June 2002), to provide funding and technical support for development of traceability and identity preservation systems along the agri-food continuum to the retail level. **A voluntary labelling system will allow commodity organizations and companies to do their own analyses, make their own business decisions, and develop their own strategies based on their buyers' (and ultimately consumers') requirements.**

Do you think that Quebec should adopt a traceability system similar to the one in the European Union and what would be the cost to the industry?

- The European Union's system of traceability, tolerance for GM material, and mandatory labelling has resulted in no genetically modified foods on the market. Instead of providing for consumer and grower choice (not to mention R&D spending by EU based biotechnology developers) the system has resulted in no choice whatsoever. European growers are not able to access the many advantages of genetically modified crops including enhanced yields, built in pest control and reduced input costs. Europe is currently producing only a very small acreage of GM corn in Spain and Germany for the purpose of animal feed, so there is little issue with implementing the extremely low tolerances permitted in the current system. But for North America, the same tolerance level would not be feasible because of the strong adoption of GM crops.
- A recent paper from the University of California, Davis provides a review of mandatory labelling of GM foods and whether it really provides consumer choice. The paper provides a detailed explanation as to why mandatory labelling has not served its stated goal of providing consumer choice. Carter & Gruère conclude that mandatory labelling provides food processors and retailers a choice, but it does not facilitate consumer choice. Because of rational food processor decisions, mandatory labelling acts as a market barrier, and GM products do not appear at the retail level with the end result of preventing choice for both consumers and farmers.
Source: *AgBioForum*, 6(1 & 2): 68-70, 2003

- In Quebec and Ontario, some 50% of corn and soybean production is currently genetically modified. The threshold as outlined in the Canadian National Organic Standard allows for 5% or less of “non-organic” ingredients (e.g. presence of GM ingredients) are both achievable and realistic for the North American agri-food industry.

Source: National Standard of Canada CAN/CGSB-32.310-99,
<http://www.pwgsc.gc.ca/cgsb>

CropLife Canada supports a voluntary system of labelling allowing for choice in both production systems as well as end products and traceability systems to support both.

Do you see any advantages or drawbacks in adopting a traceability system different from the one in place elsewhere in Canada?

- It is difficult to imagine how consumer confidence in the accountability of any traceability system would be enhanced if Quebec took a different path than the rest of Canada. Certainly there would be significant impacts and increased costs for the entire agri-food sector of differing systems.

CropLife Canada supports continued work by all members of the agri-food chain to adopt traceability systems that can be cost effectively implemented both within Canada as well as on a North American basis.

FOOD PRODUCT LABELLING AND LABELLING OF GMOS

- The question of labelling of GMOs has been debated extensively in both the House of Commons and throughout the Canadian General Standards Board process to design the *Standard for the Voluntary Labelling of Foods Obtained or Not Obtained Through Genetic Modification*.
- Several conclusions were drawn in examining the merits and drawbacks of mandatory versus voluntary labelling. These include:

Countries with mandatory labelling proposals are struggling to implement their intent. Few countries have working systems in place, even those that have had labelling proposals in place for several years. All are in transition. The challenges are greatest for those countries with GM crops already in production;

Labelling is not cost free. Growers, processors and consumers will have to pay more to implement mandatory labeling;

Mandatory labelling does not provide choice to consumers or growers;

Valuable trade opportunities could be put at risk. Our trading partners including the United States may not agree with claims developed in Canada that do not mesh with their own labelling rules; and

A voluntary standard allows those producers and processors, who assessing the cost effectiveness of supporting unique traceability and Identity Preservation systems, to proceed without wide-ranging impacts on the overall agri-food system.

Do you think we should maintain the current GMO labelling standard (voluntary) or adopt a mandatory approach, similar to Europe?

CropLife Canada supports providing both consumers and growers choice. This is why CropLife Canada voted in support of the *Standard for the Voluntary Labelling of Foods Obtained or Not Obtained Through Genetic Modification* through the process led by the Canadian General Standards Board.

CropLife Canada remains committed to the principles governing voluntary labelling standard for GMOs to ensure the standard is:

- Informative;
- Understandable;
- Verifiable;
- Not false; and
- Not misleading to consumers.

We believe that consumers want and deserve a voluntary standard that meets these principles.

Scientific experts examining the regulatory system for biotechnology and the question of mandatory labelling have endorsed a voluntary approach. These include:

- The Royal Society of Canada – Expert Panel on the Future of Food Biotechnology;
<http://www.rsc.ca/foodbiotechnology/indexFR.pdf>
- The Canadian Biotechnology Advisory Committee. Regulation of Genetically Modified Foods; and
<http://cbac-cccb.ca/epic/internet/incbac-cccb.nsf/vwGeneratedInterF/ah00186f.html#theme3b>
- The Government of Canada response to the Standing Committee on Agriculture and Agri-Food Report *Labelling of Genetically Modified Food and its Impact on Farmers*
http://www.agr.gc.ca/cb/biotech/gm_e.phtml

“The Government [of Canada] is committed to providing continued support for the development of a voluntary labelling standard for biotechnology-derived foods.

The proposed *National Standard for Voluntary Labelling and Advertising of Foods That Are and Are Not Products of Genetic Engineering*, currently being developed through the Canadian General Standards Board (CGSB) process with support from the Government, deals exclusively with the labelling of foods produced through the use of recombinant DNA and other closely related techniques – that is, those foods falling within the narrow definition of biotechnology.”

Support for Mandatory Labelling

CropLife Canada also supports the current Government of Canada requirement for mandatory labelling for changes in nutritional profile and allergenicity. This is to protect consumers from any food (not just genetically modified) where the nutritional composition has been changed significantly or where allergens have been detected. These changes can pose real health threats to certain consumers, and the label is rightly used to provide consumers with information of value.

Potential Impacts of Mandatory Labeling

However widespread adoption of mandatory labelling will have impacts on the agri-food industry and consumers that should not be overlooked.

a) Cost to Consumers and Growers

There is no question that mandatory labelling would have a significant impact on the cost of food to consumers, as well as a major impact on the cost of production to growers. In a study prepared by the management consultant group KPMG titled *Economic Impact Study: Potential Costs of Mandatory Labelling of Food Products Derived from Biotechnology in Canada* [2000], the impacts were estimated as follows:

- **Labelling costs could be equivalent to at least 9-10% of the retail price of processed food products, and 35-41% of producer prices.**

Our analysis suggests that, as a minimum, mandatory labelling of processed food products produced from biotechnology products or their derivatives could result in cost increases through the supply chain equivalent to 9-10% of the retail price of such products. Equivalent products labelled as biotechnology-free would be subject to similar cost increases. This finding is based on an analysis of the impacts involved in labelling products using grain and oilseed products (corn, canola, soybeans) or derivatives from these commodities. **This cost impact for labelling would be equivalent to 35-41% of the prices paid to producers for grain and oilseed commodities.**

The key factor driving the cost of labelling would be the need for all organizations in the food industry supply chain to keep their biotechnology and non-biotechnology product variants physically separate, and to be able to demonstrate the presence or absence of modified material in compliance with labelling regulations.

The following systems and capabilities would be required to enable accurate labelling:

- Separate production, harvesting, storage, handling and processing of biotech and non-biotech primary products;
- Separate manufacture of processed food products containing biotech, and non-biotech based ingredients, and separate SKUs for inventory control and physical distribution;
- Testing and validation to determine the presence (or absence) of modified materials, and incidence of such material, in agricultural products and derived food ingredients; and
- Management of shelf space allocations and inventory of biotech and non-biotech variants of processed food products by retailers.

Organizations at each level in the supply chain would be required to establish and operate various combinations of the above systems and processes to ensure that they could purchase and sell products that can be warranted as being either “GM” or “GM-free”.

b) Cost to Governments & Technology Developers

KPMG also acknowledges that there will be additional "...costs to establish regulatory mechanisms for compliance monitoring and enforcement by the Canadian Food Inspection Agency, costs for seed producers to introduce systems to ensure the seed they sell can be sold as either 'GM' or 'GM-free', and liability insurance against the risk that products sold by industry participants may be non-compliant.

Establishment of the regulatory oversight mechanisms would be expected to involve additional costs to the Canadian Food Inspection Agency. Consistent with the federal government's cost recovery policy, we would expect that at least some part of these costs would be passed on to industry, and ultimately, to consumers."

c) Does Mandatory Labelling Really Provide Consumer Choice?

In their paper on mandatory labelling of GM foods, Carter and Gruère note that in countries, which have adopted mandatory labelling, it is difficult (if not impossible) to find retail food products labelled as containing GM ingredients. Ironically this fact has not been well publicized, and as a result many observers still question how anyone could be opposed to mandatory labelling if it provides information to consumers. Carter and Gruère question whether a mandatory labelling policy is beneficial if it is intended to provide consumer choice but fails to do so. The policy results in additional taxpayer costs due to enforcement and testing. In addition, those consumers who would prefer to buy lower-priced GM food experience losses. And finally mandatory labelling acts as an import barrier and diverts trade.

Source: AgBioForum, 6(1 & 2): 68-70, 2003

RECOMMENDATION

There are few reliable indicators currently in place to examine the potential very widespread impacts on the agri-food sector in both Quebec and Canada of moving to a more restrictive and mandatory labelling and comprehensive traceability system throughout the agri-food chain. Given the value of the agri-food industry to Quebec's and Canada's economy, the trade relationships that are centered in North America, and the existing robust science-based regulatory system for GMOs, CropLife Canada offers the following recommendation to the Commission:

That before there is any further move to introduce mandatory labelling or a comprehensive traceability system, the Committee and the Government of Quebec initiate a thorough study examining the impacts of mandatory labelling including:

- **The impact on consumers and the potential to increase food costs;**
- **The impact on trade, especially of value-added products to our trading partners including the United States;**
- **The impact on inter-provincial trade;**
- **The impacts on farmers including added costs behind the farm gate;**
- **The impact on future investment in research and development in the biotechnology sector;**
- **The potential cost increases for Quebec based food and beverage manufacturers; and**
- **The cost increases to the provincial and federal government to ensure regulatory compliance.**

APPENDIX 1

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