

Agriculture and Agrifood: Securing and Building the Future



Report by

Commission sur l'avenir de l'agriculture
et de l'agroalimentaire québécois



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et de l'agroalimentaire québécois

The following publications make up the Commission report and its appendixes:

- ***Report by Commission sur l'avenir de l'agriculture et de l'agroalimentaire québécois***
- ***Études complémentaires*** (summaries drawn up at the Commission's request on subjects raised in the Report)
- ***What We Were Told*** (summary of oral presentations at regional and provincial public hearings)

These three documents, the English and French versions of the Commission's report, all briefs received by the Commission, and other related information can also be consulted on the Commission website at www.caaaq.gouv.qc.ca or the website of Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec at www.mapaq.gouv.qc.ca.

Agriculture and Agrifood: Securing and Building the Future

Proposals for sustainable
and healthy agriculture

Report by

Commission sur l'avenir de l'agriculture
et de l'agroalimentaire québécois



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et de l'agroalimentaire québécois



**Commission sur l'avenir de l'agriculture
et de l'agroalimentaire québécois**

Québec City, January 31, 2008

Mr. Laurent Lessard
Minister of Agriculture, Fisheries, and Food

Dear Sir:

It is with great pleasure that we submit the report by Commission sur l'avenir de l'agriculture et de l'agroalimentaire québécois.

Constituted on June 20, 2006, under Order in Council 570-2006, this commission was tasked with reporting on the challenges and issues facing Québec's agriculture and agrifood sector, examining the effectiveness of public policy in fields that affect this sector, making a diagnosis, and issuing recommendations regarding adaptations to be made.

This report draws largely on public consultations held in 15 regions and 27 municipalities in Québec, which gave rise to 770 presentations, 720 of which were supported by a brief. It is also based on a number of external studies and a series of meetings with a variety of stakeholders.

We trust our report will help secure and build the future of Québec's agriculture and agrifood sector.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jean Pronovost'.

Jean Pronovost
Chair

A handwritten signature in black ink, appearing to read 'Pascale Tremblay'.

Pascale Tremblay, Agrologist
Commissioner

A handwritten signature in black ink, appearing to read 'Mario Dumais'.

Mario Dumais
Commissioner

c.c. Mr. Gérard Bibeau, Executive Secretary, Executive Board

Commission sur l'avenir de l'agriculture et de l'agroalimentaire québécois

Jean Pronovost, *Chair*

Mario Dumais, *Commissioner*

Pascale Tremblay, *Commissioner*

Suzanne Dion, *Executive Secretary*

Yvon Boudreau, *Special Contributor and Copywriter*

COORDINATION & PROOFREADING

Chantale Tremblay

WORD PROCESSING

Odette Côté

COPYEDITING

Charlotte Gagné

TRANSLATION

Anglocom

GRAPHIC DESIGN

Folio et Garetti

PHOTOGRAPHY

Clément Allard: Chapter 2

Pierre Beauchemin, ITHQ: Chapter 7

Éric Labonté, MAPAQ: Chapter 10

Marc Lajoie, MAPAQ: Introduction, Chapters 1, 4, 5, 6, and 11

Guy Tessier: Cover, Chapters 3, 8, 9, and 12

PRINTING

SOLISCO/Caractéra

Please note that all quotations from briefs and presentations to the Commission are translations from the original French, with the exception of that of Dr. Chandra Madramootoo, Dean of the Faculty of Agricultural and Environmental Sciences of McGill University.

Bibliothèque et Archives nationales du Québec and Library and Archives Canada cataloguing in publication

Commission sur l'avenir de l'agriculture et de l'agroalimentaire québécois

Agriculture and Agrifood: Securing and Building the Future: report

Text in French and English.

ISBN 978-2-550-51786-3

1. Agriculture - Québec (Province). 2. Agricultural industries - Québec (Province).
3. Agriculture and state - Québec (Province). I. Title.

S451.5.Q8C65 2008 630.9714 C2008-940071-2E

Acknowledgements

Commission sur l'avenir de l'agriculture et de l'agroalimentaire québécois received a great deal of support and many contributions, which substantially expanded its thinking and helped it fulfill its mandate.

We would first like to thank the outstanding collaboration of various Québec government ministries, especially Ministère de l'Agriculture, des Pêcheries et de l'Alimentation. The ministry willingly supplied all the information, analyses, studies, and data the Commission requested, and provided constant and painstaking logistical support. La Financière agricole du Québec, Régie des marchés agricoles et alimentaires du Québec, and Commission de protection du territoire agricole du Québec also displayed a great spirit of collaboration. Ministère du Développement durable, de l'Environnement et des Parcs, Ministère des Finances, Ministère de l'Éducation, du Loisir et du Sport, Ministère des Affaires municipales et des Régions, Ministère de la Santé et des Services Sociaux as well as Ministère du Développement économique, de l'Innovation et de l'Exportation and Ministère de l'Emploi et de la Solidarité sociale contributed their expertise and data. The Commission would also like to underscore the ongoing contribution of Agriculture and Agri-Food Canada—its representatives assiduously followed the Commission's work and answered all our requests for information.

The Commission enjoyed the services of a research and support team comprising members from various ministries and Québec government bodies, or recruited from outside the government. This small team, directed by executive secretary Suzanne Dion, did remarkable work.

The Commission also called upon external experts and consultants who shed light on its analyses and enabled it to formulate recommendations based on reliable data and a high level of expertise.

Most important, the Commission drew on the some 770 briefs and presentations it received during the regional and provincial hearings, which formed the bulk of the reflections that inspired this report. The Commission would like to express its profound gratitude to the people and organizations that committed themselves to preparing and presenting these briefs.

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We firmly believe in the future of this sector. However, a number of signs lead us to believe that we have, in some sense, reached the limits of the current agricultural model. Today, the world of agriculture and agrifood is greatly different from the one that gave rise to most of our current policies.

We therefore believe that despite the important gains these policies and practices have allowed us to achieve, the time has come to boldly rethink the role of agriculture in society like those before us once did. As society's needs change, it seems only natural that agriculture and agrifood should change as well.

**– Students of Université Laval's
Faculty of Agricultural and Food Sciences,
in their brief presented to the Commission
on Friday, September 7, 2007 in Montréal**

Introduction



Agriculture has left its mark on Québec history. It has been our principle means of economic, cultural, and social survival. Our agricultural past has shaped many features of our collective personality. In many ways, we still have a close relationship with the rural milieu, being for the most part relatively new to city life. Although agriculture is no longer the glue that binds Québec society, it still has a vital role to play. In addition to producing food, agriculture provides a way of life and an active means of occupying our vast territory.

Québec agriculture has changed profoundly over the last 50 years. As in other production sectors, it has modernized and has significantly increased yields through scientific and technological advances. Agriculture in Québec, like in all industrialized countries, has become specialized, and farm size has increased considerably. Agriculture has enjoyed—and still enjoys—the benefit of educational and research institutions; agricultural advisory services in management, agrology, genetics, and animal health; agricultural input and equipment suppliers at the cutting edge of technology; and the active support of government. As in most other developed countries, the intensification of Québec agriculture, though not entirely without negative consequences, has been a response to the needs and expectations of society at large.

Québec agriculture has also boosted the food processing industry, propelling it to top place among Québec manufacturing sectors in terms of value of shipments. On the distribution side, major changes and a complete restructuring have occurred, leading gradually to today's high level of concentration.

In recent years there have been great upheavals in the agriculture and agrifood sector. The domestic and international contexts have changed, mainly due to the spectacular increase in global commerce and the emergence of new agricultural exporting powerhouses. These changes have made it increasingly hard for our agricultural goods to compete with those flooding our markets from every corner of the globe. New uncertainties have arisen, raising troubling questions about agricultural practices and their environmental sustainability. Ordinary citizens and consumers, who used to be absent from debates on agricultural issues, have begun to voice their concerns—and their demands—about the environment and health and have begun taking the agriculture and agrifood industries to task. Agriculture is no longer perceived as it has been in the past. The interrelationships between the agrifood sector and health have become more evident, and agricultural production is now required to be both environmentally friendly and socially acceptable. In short, agriculture has become a societal issue.

AGRICULTURE AS SOCIETAL ISSUE

In this changing and increasingly complex world, farmers and other stakeholders in the agrifood sector have come to realize that support mechanisms put in place over the last 40 years to encourage the development of the agricultural and agrifood sector are no longer sufficient, and that some of these measures have reached the limit of their usefulness. Agriculture has entered into a period of doubt, questioning, and even crisis.

Numerous phenomena provide compelling proof of this state of tension:

- **The decrease in farm income**, exacerbated by crises like mad cow disease and the collapse of pork market
- **The unparalleled debt level of farmers**, partly due to the high cost of quotas, the pursuit of productivity gains, and the increasing size and modernization of farms
- **The rise in the cost of certain financial aid programs to agriculture** at a time when society must address other priorities, particularly in health, education and infrastructure
- **The difficulty of intergenerational farm transfer**, which puts the future of farming in jeopardy
- **Stricter environmental and crop protection regulations, sustainable development imperatives, and the expression of new societal norms**, which result in an increase in the cost of production above that which the markets are prepared to pay
- **The erosion of citizen and consumer trust in agricultural production and the entire agrifood sector**, which are accused of polluting the environment and overemphasizing short-term economic gain to the detriment of food quality
- **The pressures exerted, particularly in World Trade Organization (WTO) talks, for increased access to agricultural markets**, which would destabilize the production sectors under supply management in Québec, together with increasing exposure in other sectors to international competition due to globalization
- **The disquieting increase in psychological distress in the agricultural community**, a phenomenon that has been little noted among farmers up till now
- **The low expectations for growth and development in Québec's food processing sector**, which faces more and more acute problems of capitalization, supply, productivity, and worker availability even as foreign competition increases
- **The structure of the food distribution sector and its high level of concentration**, which raises concerns about access for Québec products to distribution channels

True, the state of crisis is not generalized. Agriculture and agrifood are well established in Québec and have shown a remarkable capacity for adaptation in the past. They have the grit and determination they need to tackle today's challenges. But the instability they currently face and the causes of this instability remain extremely worrying. Many representatives of the agricultural and agrifood sector at the Commission's hearings indicated that they were now at a turning point and needed new impetus.

THE COMMISSION'S MANDATE

This is what spurred the Québec government to set up its Commission sur l'avenir de l'agriculture et de l'agroalimentaire québécois with the mandate to

- “review the issues and challenges now facing the agriculture and agrifood sector in Québec
- “examine the effectiveness of current government actions, including those under the responsibility of the Minister of Agriculture, Fisheries and Food and those of other ministers that have an impact on the agriculture and agrifood sector through environmental, health, land use, regional development, and other issues
- “make an assessment and make recommendations that reflect the challenges of competitiveness, farm income, societal expectations, and the development of potential in the regions.”

The Commission met with farmers, processors, distributors, economic development organizations, ecologists, elected municipal officials, professionals involved in agricultural production, input and equipment suppliers, exporters, researchers, educators, citizens and consumers—in short, all those who make a living in the agricultural and agrifood sector or who have an interest in it. The Commission held public hearings in all regions of the province except Nord-du-Québec and received some 660 briefs and presentations reflecting a great diversity of viewpoints and expressing the concerns, hopes, expectations, and ambitions of many hundreds of people from all walks of life and professional milieus. The Commission also held two weeks of general public hearings where it received 110 briefs presented mostly by regional or Québec-wide organizations.

These individuals, businesses, and organizations expressed their confidence in Commission's work. They invested a great deal of time in examining the issues within their own organizations, documenting problems they had experienced, developing concrete solutions, and coming to speak of their experiences and their vision for the future. The Commission was extremely impressed by both the quantity and the quality of their work and by the high hopes they put in the Commission's work. It encountered passionate people who were proud of their achievements, but worried about their future.

What the Commission heard largely confirmed what it had surmised about the questions and concerns plaguing agriculture and agrifood. In all regions citizens from different walks of life openly wondered where Québec agriculture was headed. They fear that in a changing world, to simply continue with current policies, however successful in the past, will worsen the crisis and lead to an impasse. Many called for a new vision for agriculture and agrifood, founded in past successes but adapted to the current realities of our society, a society that is largely urban but that is looking to re-define its relationship with agriculture.

Of course, participants expressed a great range of concerns and made differing, sometimes contradictory recommendations. This is to be expected given the importance and complexity of the issues involved. But in this diversity of opinion, the Commission observed common themes, repeated questions, major trends, and inescapable demands. It identified substantive issues that need to be studied more closely, and the principal changes that must be made.

The Commission also considered it important to invite various experts to evaluate in greater detail the strengths and weaknesses of the main agricultural policy instruments in Québec. It also examined policies from other countries. This information supplements the crucial testimony supplied by the public hearings.

The Commission noted that organizations and institutions in the agriculture and agrifood sector in Québec have, for the most part, been measured and temperate in their critique of the pillars of Québec agricultural policy. The key instruments of this policy form, in their judgment, a coherent whole.

When it came time to analyze the mass of information it had collected, the Commission focused on fundamentals, seeking to develop a vision of the future of agriculture and agrifood for the next 15 to 20 years. It spent a great deal of time formulating recommendations it considered the most conducive to structural improvement, and it expects the government to study them carefully.

CHANGE IS INESCAPABLE

Our goal was to provide a foundation for a future agricultural policy. We sincerely hope that this vision will garner broad support, for it is a demanding vision, one that is based on a clear and lucid assessment and that reflects our thirst for excellence, our desire to do better, our capacity for innovation, and our ambition. It will require the involvement of the entire agricultural and agrifood sector and all who are associated with it, as well as the active collaboration of the population as a whole. To this end, we considered it essential to identify goals and suggest targets that all will want to reach.

The Commission's diagnosis is clear: the agriculture and agrifood sector is increasingly inward-looking. The systems in place create obstacles to new types of agriculture, to the development of innovative products, and the exploration of new commercial opportunities. These systems are built on a dominant agricultural model where everything is linked to a protectionist vision of the sector. Its goal was to protect Québec agriculture from competition and the risks of innovation, whose complexities we do not always control. We created a fortress for Québec agriculture, which limits the sector's capacity to explore its potential and constitutes an increasingly antiquated shield in a world of economic openness.

The agriculture and agrifood sector will be unable to successfully confront the challenges of the future by simply maintaining the status quo. It is true that the recommended changes carry their own risks. After weighing the pros and cons of the proposed reforms, the Commission is firmly convinced of the need to make these changes in an ordered and gradual manner. There really is no alternative. Either the agriculture and agrifood sector commits to these changes with the proactive support of all of society and opens its systems to innovation and entrepreneurial initiatives, or certain changes will happen by themselves, due to current circumstances, new consumer trends, and competition from other products from home and abroad. And if competition forces our hand, the changes will probably occur in chaos and stress, with plant closings, bankruptcies, social controversy, and human tragedy. The current crisis in the pork industry is a good example of the fate that awaits systems that do not adapt to the new realities.

The Commission hopes that the vision expressed in this report will resonate with a great majority of Quebecers by conveying a common understanding of agriculture—one that reflects our past as well as our present, that speaks to our uniqueness, and that provides us nourishment and promotes our development. It is truly a collective undertaking. Agricultural and agrifood issues deserve that we work together as a society.

The Commission invites the government as well as all people working in this sector and society as a whole to commit to this vision of change. The road ahead will be demanding for everyone. The Commission was careful to balance the efforts expected from all involved, to favor dialog and cooperation, and to propose a course that would allow the various players and partners to advance together toward a common goal.

Modern societies that wish to fulfill their destiny must embrace and manage change. The new challenges in agriculture and agrifood call for a fundamental realignment in the sector, but also careful management of these changes to ensure a smooth transition from the present to the future. Above all, we must respect those on the front line, who will experience the change in their daily lives. This is why the Commission has proposed an action plan that takes into account the need for progressive change.

We hope that our assessment and recommendations will meet the expectations that many people from different walks of life have had of the Commission's work.

Factors Affecting the Future of Agriculture



1

Agriculture and agrifood, like other sectors of the economy, are changing along with our rapidly evolving world. A number of factors or phenomena, some of them external to the agrifood sector itself and to Québec, can have a major, even decisive impact, on agricultural production and the processing, marketing, and distribution of food.

We could probably draw up a long list of factors and trends that could affect agriculture and agrifood in the foreseeable future. We will limit ourselves, however, to those we consider the most likely to have a significant impact on development in the sector, factors that must be taken into account in articulating a realistic vision of the future of agriculture. We have chosen ten.

DEMOGRAPHICS

Demographics will have a major impact on the development of Québec society.

Demographic forecasts by Institut de la statistique du Québec suggest five key trends:

1 Québec's population will grow very little. It is likely to increase from 7.5 million in 2007 to 8.1 million in 2031, then should start to decline more and more rapidly.

2 There will be much greater demographic variation in the regions. From now to 2026, the populations of the seven administrative regions in southern Québec will increase, primarily by drawing people away from other regions. Consequently, more than half of Québec's regions will see their share of the total population decrease or barely keep pace.

3 Québec's population will continue to become more urban. The population of the metropolitan area of Montreal should increase by about 9% by 2021, although there is an opposite trend for certain categories of city dwellers to migrate to the country. Therefore the populations of many MRCs around Montreal should grow between 25% and 45% by about 2021.

4 The population is aging. The portion of the population under 20 stood at 40% in 1971, but will fall to only 19% in 2026. In contrast, the number of people 65 and over will have risen from 7% to 27% during the same period.

5 By 2011, the number of people leaving the job market, primarily to retire, will be higher than the number coming into the job market. This situation will exacerbate the shortage of workers, which is already a problem, particularly in the agriculture and agrifood sector.

The demographic situation is not something we can easily change. We will therefore need to rethink certain agriculture and agrifood development issues, notably land use, the protection and development of agricultural land, the economic vitality of rural communities, the development of human resources, and changes in food requirements.

The world's population is predicted to grow from 6.67 billion in 2005 to almost 7.5 billion in 2015. At the same time, rising standards of living in many countries should drive consumption of animal protein. The combination of these two factors will have important consequences for the food requirements of the world's population. The Food and Agriculture Organisation of the United Nations (FAO) forecasts that in the next 20 years the world's demand for grains will rise by 50% due to the rapid growth in consumption of meat. The demand for meat will grow about 30%. All this will affect global trade in agricultural products and will have a direct or indirect impact on Québec agriculture.

INTERNATIONAL TRADE

The value of exports increased by a factor of 81 between 1960 and 2005¹. Due to the huge growth in trade of manufactured goods, the share of agricultural products as a portion of all traded goods fell from 30% in the sixties to 8% today. Even so, agricultural trade amounted to US\$852 billion in 2005 and showed a high rate of growth (the value of agricultural exports was \$224 billion in 1979–1980). FAO forecasts an additional rise of 23% between 2005 and 2015.

Agricultural trade, already a focus of discussions within the framework of the General Agreement on Tariffs and Trade (GATT), occupies an increasingly important place in the World Trade Organization (WTO) negotiations.

A new factor is having an impact on agricultural trade—the arrival on the international export market of countries that, until recently, were net importers. Such is the case of China and India. Brazil has become the third largest agricultural power in the world over the last 15 years, after the United States and the European Union. Nevertheless, these three countries alone are not able to feed the world's population. In 2005 the total value of agricultural exports was \$28.7 billion for China, \$10.1 billion for India, and \$35 billion for Brazil (of a total of about \$852 billion in international trade²).

It is these new exporting nations, strategically aligned with developing countries in an alliance informally known as the Group of Twenty (or G-20)³, that has put the most pressure on WTO to open up markets in developed countries. They have two main objectives: the reduction of the financial support that developed countries give their agricultural producers, a support the G-20 considers unfair, and a cut in trade tariffs, such as those Canada imposes—under supply management—on dairy products (299% for butter and 246% for cheese), poultry (238% for chicken) and eggs (168%). The G-20 contends that these tariffs prevent or considerably hinder access of their products to the Canadian market.

High tariff barriers are not exclusive to Canada. For example, processed rice imported into the developed countries of Asia is protected by tariffs averaging 314%. However, in the vast majority of countries, tariffs do not offer the level of protection on the order of that provided by supply management in Canada.

1. They amounted to US\$10.159 trillion in 2005. (WTO, *International Trade Statistics*, 2006)

2. WTO, *International Trade Statistics*, 2006

3. There are now 27 members, including Bolivia, Argentina, Venezuela, Guatemala, Cuba, Egypt, the Philippines, Pakistan, Tanzania, and Zimbabwe.

ENERGY NEEDS AND PRICES

At the beginning of the millennium, the price of a barrel of oil stood at \$20. It now stands at above \$90, and the least natural disaster or socio-political tension in oil-producing countries pushes the price to new heights.

The price of oil serves as a benchmark for the price of other forms of energy⁴. Some clean or alternative sources of energy are not economically viable unless the price of oil is high. We have clearly entered into a period of expensive energy, and measures for reducing greenhouse gases will increase the upward pressure on energy prices.

For Québec's agriculture and agrifood sector, high oil prices argue for energy-efficient practices. They also raise the recent, though not universally shared, concern about the environmental costs of long-distance transport of foodstuffs, which can travel thousands of kilometers before reaching our tables, while many of them could well be produced and sold locally.

Agriculture has now become an energy producer. Encouraged by Brazil's success, the American government decided in 2005 to promote the use of plant-based ethanol as a means of meeting the nation's fuel requirements. The impact of this policy is already being felt. Two years later, in the United States, as well as in some other countries, we see crop land being converted to corn for ethanol production. This triggers a chain reaction: a rise in the price of corn, decreased acreage devoted to soybeans and other crops leading to an increase in their price⁵, an increase in the cost of certain types of animal production, a rise in farm income, fluctuations in international exports, and the list goes on. There have been some doubts cast, however, on the real gain in energy value and the environmental impacts of this "green fuel." But we cannot ignore the significant effect it has on agriculture.

It should be noted that ethanol is only one of 1,055 bioproducts manufactured in Canada. Great hopes are held out for biofuels, either produced through biomass techniques or based on cellulose from agricultural crops or forest products.

THE ENVIRONMENT

Many factors have combined to bring about the deterioration of the environment and the earth's renewable resources since the advent of the industrial revolution: the global population explosion, industrial discharge released untreated into the environment, explosive agricultural development leading to an increase of diffuse pollution, massive exploitation of fossil fuels, deforestation causing erosion, and more. The resulting environmental degradation has caused governments to take measures to repair the damage, where possible, to gradually eliminate the sources of pollution, and to move proactively to protect ecosystems and biodiversity.

This process has varied from country to country, but everywhere the desire to slow or halt the damage to the environment due to human and industrial activity has resulted in more and more extensive legislation.

Environmental concerns have transcended national borders, resulting in several international conventions of which the most recent are those dealing specifically with biodiversity and climate change. Similarly, the concept of sustainable development, which was first presented at a U.N. working session, has been largely adopted by many countries.

Environmental issues, now inescapable, mean at least three things for Québec's agriculture and agrifood industry:

- They necessitate measures and practices that eliminate environmental damage.
- They impose rational water use and special vigilance concerning the quality of water, the ultimate pollutant sink.
- They open the way for agriculture to contribute to environmental goals beyond simply conforming to current regulations.

4. In Québec, electricity rates follow another logic; they can nonetheless be compared with the price of fuel.

5. Between 2004–2005 and 2007–2008, the price of corn rose from \$101/tonne to \$140–\$165/tonne. The price of soybeans over the same period fluctuated between \$220/tonne and \$260–\$280/tonne.

CLIMATE CHANGE

According to the latest U.N. report, there is strong consensus in the international scientific community on the extent of climate change⁶. The fight against greenhouse gases and preventive measures against climate change are long term initiatives that have been adopted by a very large majority of governments around the world.

Climate change is likely to disrupt many aspects of our way of life, and to particularly affect agriculture. We already see desertification spreading in certain parts of the world, causing population displacement. Droughts are more frequent and more severe, including in Canada. The struggle for access to potable water is already aggravating cross-border conflicts as the U.N. reports that more than a billion people around the world did not have access to clean water in 2006. Floods and other natural disasters are becoming more frequent, and their severity is increasing. Insects and plants that have never before had an impact on our agricultural production are migrating northwards. On the other hand, we can now cultivate certain crops that were heretofore unsuitable because of our severe winters.

In the face of the serious consequences of climate change, governments have adopted, by international convention, measures that will slow the emission of greenhouse gases and counter other causes of climate change to lessen its impact on populations and the environment. These measures will affect energy production methods, modes of transport, water and natural resource use policies, the production of biofuels and other energy products, and more.

These environmental imperatives will have a significant impact on the Québec agriculture and agrifood sector's strategic choices and the management of its affairs.

HEALTH ISSUES

As concern about environmental issues has grown, citizens have focused more and more on the relationship between health and food. The fact that high mortality diseases such as cancer or cardiovascular disease have become almost endemic and have been associated with certain human behaviors such as eating habits has lent credence to the idea that food can be harmful to health. The campaign against potentially carcinogenic food, cholesterol, and more recently, trans fats, has become generalized. Today the alarming rise in the number of cases of obesity reinforces the association in the public's mind between food and health⁷, resulting in demands for closer collaboration between health organizations and the agriculture and agrifood sector.

Consumers are bound to become even more interested in health issues in the future. The demand for safe and nutritious food, as well as for specific content, will inevitably increase. The ability to meet this generalized and at the same time extremely fragmented demand for specialized and specific foods, and to respond to associated health concerns expressed in a multitude of ways, will be one of the great challenges for the agrifood sector in the years to come.

6. United Nations Environment Program, *Global Environment Outlook, GEO₄*, 2007

7. According to Institut national de santé publique du Québec, adult obesity rates in Québec increased from 14% to 22% between 1990 and 2004.

SCIENTIFIC ADVANCES

According to FAO, the increase in global agricultural production over the last 50 years was 1.6 times as great as the level of production attained in 1950 after 10,000 years of agricultural history⁸. This statistic demonstrates the importance of scientific and technological advances to the development of agriculture.

This achievement, which has not been without repercussions, resulted from a three-fold agricultural revolution in industrialized countries:

- An industrial revolution that enabled mechanized, large-scale agricultural production; intensive mineral fertilization; protective treatments for crops and animals; and modern techniques of food preservation
- A biotechnical revolution that provided high-yield crop varieties and animal breeds
- A transportation revolution that gave us the ability to move inputs and agricultural products over very great distances.

Scientific know-how will continue to expand, and technical innovations will continue to develop, particularly in mechanics, agronomy, genetics, and food processing and preservation. But the most significant changes are likely to come from the application of biological sciences to agriculture, and the discovery and commercialization of new molecules, energy sources, medicines, proteins, nutraceuticals, and new foods. The area of application of the new biotechnologies far surpasses that of genetically modified organisms (GMOs), despite the concern and controversy surrounding the latter.

We can anticipate greater use of biotechnology and genetic engineering in many agricultural spheres. At the same time, Québec must take a critical look at these new technologies, particularly from an ethical viewpoint. Their scope is so great that Québec should take interest in them and seek to exploit their potential while respecting its own values and priorities. Québec must be in a position to manage the changes resulting from these new technologies and products, and to make choices that respect the principles of sustainable development.

SOCIAL ACCEPTABILITY

In developed countries, citizens are participating more and more actively in decisions on economic development. They are involved at the municipal, regional, or national levels depending on the scope and potential impact of the projects. Sometimes this happens within a formal framework such as Québec's Bureau d'audiences publiques sur l'environnement, which holds public environmental hearings.

Québec is a modern, developed, and democratic society. Sustainable development, a concept that it promotes, requires the reconciliation of economic, social, and environmental development issues and presupposes that major development projects cannot be carried out if they are opposed by a large majority of the population.

Social acceptability has become a key precondition for implementing the most contentious industrial, commercial, or agricultural undertakings. In Québec, social acceptability has been a particularly hot issue in hog farming. We can anticipate that the public will be at least as vigilant in the case of other projects likely to have an impact on rural communities or raise questions about values associated with the public perception of agriculture and agrifood. Measures taken to protect water quality, concerns about GMOs, the value attributed to family farms, the importance given to protecting rural landscapes, the interest in multifunctional land use and problems of coexistence, to name just a few, are aspects that already prompt the public to take an interest in the agriculture and agrifood sector and to take part in debates concerning approval of agricultural projects. Their interest has tended to grow and will be an increasing challenge in the management and regulation of land use in agricultural zones.

8. FAO, "World food and agriculture: lessons from the past 50 years", *The State of Food and Agriculture 2000*, 2000

In recent years, European citizens have been paying more and more attention to how agriculture is financed, obliging governments to clearly explain and justify financial support given to agricultural production.

The agriculture and agrifood sector must reconcile the values and viewpoints of all members of society. It must take into account their interest in the sector's development and their wish to participate in decisions that affect its future, at both the international and domestic level. The large number of citizens outside the agriculture and agrifood sector who participated in the Commission's public hearings is a reflection of this interest.

ROLE OF THE CONSUMER

Consumers today say they want and expect new, differentiated products and are willing to go wherever they need to get them.

In most industrialized countries, the demand for specialized products is constantly growing. According to the Canadian Council of Grocery Distributors, more than 4,000 products disappear from grocery shelves every year and are replaced by 4,000 new products that meet consumer needs. A study by Institut de recherche sur les PME at Université du Québec à Trois-Rivières showed that in the agrifood sector, 49% of sales of the most successful companies come from products that did not exist three years before. Supermarkets generally have more than 25,000 different grocery and other items on their shelves.

Another indication of the importance of specialized products is the increasing popularity of local products and the credibility of "reserve" appellations in Québec and in many industrialized countries. Although organic foods represent only 1% to 2% of the retail food trade, as a product category they have grown more than 15% annually since 2001. According to Agriculture and Agri-Food Canada, 85% of organic foods sold in Québec and Canada are imported. The market for organic foods responds to the demands of a growing number of consumers.

Increasingly intense competition among conventional agricultural products is causing many countries who have reviewed their agricultural policies in recent years to invest in niche markets and value-priced mid-range segments.

Any vision of the future for the agriculture and agrifood sector must give pride of place to consumers and provide them with the opportunity to participate in discussions about issues concerning the industry.

THE STATE OF PUBLIC FINANCES

For many years, the Québec government has had great difficulty in balancing its budget. The precariousness of public finances is a structural reality that will not improve in the future.

The increase in expenditures on health services is partly responsible for this situation. Health costs have increased by 6.8% per year since 1999–2000 compared to an average annual growth in total government expenditures of 3.9%. A large fraction of the government's budget goes to health services, resulting in a decrease (at best an increase to cover inflation) in resources given to most other ministries, as is indicated in Table 1.

Table 1 | ANNUAL VARIATION IN BUDGETS OF VARIOUS MINISTRIES⁹ (%) (1999–2000 TO 2006–2007)

Health and Social Services	+6.8 %
Education	+3.6 %
Transportation	+5.3 %
Agriculture, Fisheries and Food	+3.6 %
Natural Resources	-3.1 %
Environment	-2.1 %
Economic Development	-1.5 % ¹⁰
Total – Government of Québec	+3.9 %

SOURCE: CONSEIL DU TRÉSOR, Estimates, 1999–2000 to 2006–2007, adapted by Yvon BOUDREAU, 2007

9. Note that the table lists fields of expertise because the names of the ministries concerned have changed over the period of time covered.

10 Due to the adoption of the Québec Research and Innovation Strategy, the budget of Ministère du Développement économique, de l'Innovation et de l'Exportation was restored for 2007–2008.

Given the aging of the population and the high tax burden of Quebecers—one of the highest in North America—we do not anticipate an improvement in public finances in the near future. Agriculture and agrifood, like other sectors, will have to deal with the fact that every public dollar must be spent where it will do the most good.

All governments in the industrialized world support their agricultural sectors. The Canadian and Québec governments must also contribute to the viability and diversity of agriculture and the improvement of the economic conditions and quality of life of those who have decided to earn their living from this profession or from associated activities. In the current budgetary context in Québec, the state must make judicious choices as to how to give tangible support to the agriculture and agrifood sector.

These then are the key trends, briefly described, that are likely to have an impact on the future of Québec agriculture and agrifood.

Key Ideas Presented to the Commission



2

As mentioned previously, Commission sur l’avenir de l’agriculture et de l’agroalimentaire québécois received some 770 briefs and presentations during its regional and general hearings.

A summary of the information and analyses presented by the participants in these hearings as well as their main recommendations is published in a separate document.

We think it important to briefly underline here observations we heard many times and from many organizations:

AGRICULTURAL PRODUCTION

- The attachment of those working in agriculture and of the general public to “human-scale” family farms.** Many participants at the hearings expressed a profound wish that farms in Québec continue to be owned and run by families.
- Protection of agricultural land.** Two complementary demands were expressed on this subject. On the one hand, many participants requested that the Act to preserve agricultural land be reinforced to protect Québec’s agricultural heritage, especially in periurban areas. On the other hand, they recommended that this law be applied with greater flexibility in the “green zone” to help revitalize rural communities by encouraging the establishment of farms of various sizes, as well as activities complementary to agriculture. On a further note, elected municipal officials called for better harmonization between the law protecting agricultural land and the law giving them responsibilities for regional planning and development.
- The priority that should be given to agricultural production destined for the Québec market.** For many participants, the primary objective of agriculture is to feed Québec’s population. A large proportion of them consider, however, that this objective is compatible with the export of agricultural products.
- The need to diversify production, to invest in added value, to develop niche and local products as well as organic foods.** Many participants strongly recommended that while Québec agriculture continue to emphasize its mainstay crops, it also diversify and develop complementary products targeted specifically at local markets.
- The need to ensure farm succession.** While recognizing that they faced an economic and social climate in which agriculture was less valued, young farmers and their families talked about how hard it was to start a farm business. Of the various factors that contributed to their difficulties, they especially mentioned the high price of farms available to young farmers; high quota prices in sectors under supply management, which substantially increased the market price of farms and made the required level of capital investment prohibitive for most of them; the difficulty in getting access to financing; and the complexity of the paperwork and the obstacles involved for young farmers who wanted to start a small farm or combine farming with an off-farm job.
- The strategic importance of crop insurance and farm income stabilization programs.** Many participants mentioned the importance of protecting farmers against large price fluctuations and natural disasters. In the name of the very survival of agriculture and the respect that a society such as ours owes to its agricultural producers, they stressed the need to preserve crop insurance and farm income stabilization programs. Many farmers associations asserted that these programs were of vital importance to Québec agriculture. Without these pillars of the financial support system, agriculture would disappear in most regions of Québec.

- **The injustice of excluding emerging forms of production and certain types of farms from the main financial support programs.** This point was perceived as a major failing of the financial support programs to agriculture, and as a lack of recognition of this type of agriculture.
- **The multiuse character of agriculture.** The bulk of participants recognized that food production was not the only function of agriculture. There was a general consensus that agriculture was important for the economic development and revitalization of rural communities and that it played a vital social, heritage, and environmental role. Many comments were made about the essential contribution of agriculture and agrifood to the occupation of rural land.
- **The lack of recognition for farmers.** The Commission received very moving testimony from many farmers who talked about the criticism they had received in recent years. They said that they had difficulty communicating the special circumstances of their profession to some members of the public, and they felt that the public no longer appreciated the importance of food production and its role in society. They expressed the hope that the Commission's work and subsequent actions would facilitate bridge-building between farmers and the general public and that through the resulting dialog the work of agricultural producers would be better understood and valued.
- **Supply management.** A great majority of participants at the Commission's hearings pleaded in favor of protecting supply management, and refused to consider or even mention scenarios or mechanisms that might eventually lead to an end to supply management and the opening of Québec's markets. The Commission also received presentations on the inconveniences and limitations of the supply management system, and the pressing need for more flexibility. Some discordant voices—a small minority—were in favor of the gradual dismantlement of the system.
- **Collective marketing.** For the great majority of those representing farmers, as well as for many other participants, collective marketing was the hard-fought outcome of efforts to give farmers real bargaining power in negotiating the prices of agricultural products. It was another pillar of Québec's agricultural system whose foundations must be protected. Without disputing the importance of a marketing mechanism that allows farmers to negotiate the price of their products from a position of strength, representatives of processing companies deplored the cumbersomeness of the current system and the difficulty they had in adapting to the demand for specialized products. Food processors called for increased flexibility in the collective marketing system.

PROCESSING AND MARKETING

- **The balance of power among stakeholders.** Food processors maintained that despite the undeniable economic value they created, they were caught in a squeeze in the agricultural and agrifood industry. They had to deal with marketing boards on the one hand, with their monopoly on sales, and large grocery retailers on the other, whose high level of concentration—especially in Québec—gave them very strong bargaining power. Processing companies also faced competition from foreign products and businesses, both in Québec and abroad. The representatives of these companies told the Commission that their expectations for growth in Québec were low. They called for dialog among the various players in this sector.
- **Food processing in the regions.** The fact that food processing companies were not well represented in many regions was mentioned frequently during the regional hearings. Food processing was widely perceived as one of the ways of revitalizing rural communities.
- **Short distribution channels.** Many participants called for local marketing of agricultural products. The “short” or direct-to-consumer channels mentioned most often were public markets, local merchants, village or on-farm produce counters, boutiques that specialized in regional products, and community-supported agriculture. Many advantages to this type of retailing were noted: the establishment of direct links between consumer and farmer, fresher farm products, transport of products over shorter distances, energy savings, an alternative to large distribution channels, better profit margins for producers, the showcasing of organic and local products, an effective sales mechanism for small farms, and so on.
- **Diversification.** Diversification applies not only to agricultural production but also to the processing sector, which must respond to changing consumer demands by offering an ever greater range of products. Diversification also concerns the distribution sector—many participants at the hearings called for new, shorter distribution channels such as direct-to-consumer sales.
- **Access to grocery shelves.** Many evoked the problem of access for Québec products to the large food chains, especially given that three big chains controlled more than 90% of grocery distribution. Many participants criticized the large distributors’ lack of sensitivity and openness to products from Québec. Some called for government regulation to guarantee a fixed percentage of Québec products in retail stores. It was also frequently recommended to the Commission that Québec products receive preferential purchase treatment from institutions (schools, hospitals, daycare centers, nursing homes, and detention centers). Representatives of distributors and merchants explained the supply dynamics of grocery stores and discussed their efforts to make room for local products.
- **The collective approach.** Many participants commented on the importance of the collective approach upon which many agricultural organizations and institutions were based, especially for marketing purposes. This was a value that was widely shared. Almost all participants in the hearings acknowledged the benefits of producer solidarity. For some, however, particularly those in the processing sector, the collective approach must be commercially flexible enough to face the increasing organization of the competition and its new value chains. Others evoked the important role that cooperatives continue to play in agriculture and agrifood; they are another collective organizational model that has been very successful in Québec.

PUBLIC EXPECTATIONS

- **The key responsibility of all players to protect the environment.** There was very broad consensus in favor of strict adherence by the agriculture and agrifood sector to high environmental standards.
- **The urgent need to clearly label Québec products and to ensure that imported products adhere to Québec's safety norms.** Participants called for an end to the chaos that now reigns in country-of-origin labeling of food products. They also unanimously expressed their indignation at the presence on Québec and Canadian markets of food containing residues of products that are banned in Canada or meat from animals fed with substances that are banned here due to health risks.
- **Access to information.** Many participants stressed the importance of the principle of access to information for citizens and consumers. They expressed clear expectations, particularly as to information on the nutritional value of foods, their origin, the presence of GMOs, growing or rearing methods, and certain specific characteristics (presence of allergens, antioxidants, etc.).
- **Health concerns.** It is well known that the public sees a close relationship between their health and what they eat. Many speakers urged the agriculture and agrifood sector in Québec to respond to public demands for quality food products and proactive participation in broader strategies to educate and to raise awareness about healthy eating.
- **Paradoxical consumer expectations.** Some spokespersons for farmers and processors, among others, underlined the paradoxical behavior of many consumers who demand, on the one hand, the imposition of strict environmental and social regulations on agriculture, all the while expecting to pay the lowest prices in grocery stores. It was hoped that these consumer demands for fresh produce and completely safe food produced in perfect environmental conditions would cause them to act accordingly when buying their food. The public must agree to pay a little bit more for higher quality.

GOVERNANCE

- **Food sovereignty.** Many participants called on the Government of Canada to use the concept of “food sovereignty” to ensure that in international trade agreements it retained the right to develop and implement its own agricultural policy in Canada and in Québec. Almost across the board, participants expressed their anxiety regarding the WTO negotiations.
- **The leadership of Ministère de l’Agriculture, des Pêcheries et de l’Alimentation du Québec (MAPAQ).** Witnesses deplored the deterioration of MAPAQ’s leadership in recent years, its loss of expertise, the small size of its budgets, and its paucity of resources, as well as the disproportionate attention paid to the economic aspects of its mission. Many called for the strengthening of MAPAQ’s vision, a clearer commitment to research and innovation, and a greater independence with regard to certain interest groups.
- **Transparency.** Many participants were concerned about transparency on the part of agricultural organizations and the government and called for greater access to objective information and more open dialog on many issues, particularly regarding protection of agricultural land, land use, rural community development, the actual state of health of waterways, accountability for government financial support to agriculture, agricultural unionization, and the presence of GMOs and pesticide residues in food.

This short list far from covers all the concerns and many nuances and suggestions expressed at the hearings of Commission sur l’avenir de l’agriculture et de l’agroalimentaire québécois. But it serves as a reminder that many of the ideas discussed in the following chapters directly echo the anxieties and expectations presented to the Commission.

Sharing the Same Vision of the Future



3

Much of the population, in Québec and elsewhere in the world, has long felt empathy for the agricultural community. Of course, relations between town and country are sometimes tainted by misapprehensions or rivalries, but overall, the men and women who work in agriculture are an object of popular affection.

Mixed in with these feelings is probably a bit of nostalgia for certain values that have eroded in the city. Agriculture, for instance, creates a special rapport with nature, the natural elements, and the environment that gives the occupation of farmer a singular character, a “culture” so to speak. Farmers feel a great sense of pride in their profession’s food-producing function. They feel they are carrying on a tradition and passing on a vital heritage; they consider themselves responsible for preserving that heritage and handing it down from one generation to the next, ideally within their own families. Farmers are proud of their status as “the boss” and greatly value the feeling of being masters of their own domain.

In more recent times, the relations between farmers and the general public changed rather abruptly. The first shock wave came from environmentalists. At a time when taxpayers were shouldering the high cost of municipal wastewater treatment and industry was prohibited from discharging contaminants into the natural environment, it was unthinkable for farmers to go on polluting like before. Odors, an annoyance deemed acceptable on the whole when small pig farms were involved, were perceived as a full-scale assault once much larger hog houses moved in. Citizens—the public—threatened the “right to produce” and triggered a moratorium on swine production in 2003.

What’s more, the intense media coverage of crises such as bovine spongiform encephalopathy (mad cow), foot and mouth disease, avian flu, and poisonings caused by eating fruits and vegetables containing bacteria or pesticide residues was an at times brutal wakeup call for citizens, even though Québec was not the primary locus of events. Suddenly people began to have doubts about the quality and safety of the food the agriculture and agrifood industry offered us, and even wondered about the health effects of some products. Moreover, the debate over genetically modified organisms (GMOs) raised suspicions in the minds of some that, behind the scenes of the agriculture industry, sorcerer’s apprentices were toying with nature and life.

Ignorance about agriculture sowed the seeds of doubt. Doubt led to suspicion, and some made the leap from suspicion to condemnation. This wholly legitimate questioning of agriculture was marred by excesses, escalation, and deplorable behavior on the part of the various protagonists, but ultimately events have led to a situation in which the relations between agriculture and what we call civil society are no longer quite the same.

Farmers were at the center of the storm, albeit more as intimidated observers overwhelmed by events than genuine stakeholders in a credibility crisis they never saw coming. They were seared by the crisis and loss of confidence, but nonetheless took note. They responded by investing heavily in equipment or amending their practices to eliminate or mitigate the environmental effects of their activities. They took part in local, regional, and national forums along with civil society stakeholders. They curtailed their use of mineral fertilizers by 35% in 15 years and introduced quality control and traceability programs. They are continuing efforts to improve their agroenvironmental performance and promote peaceful coexistence with their neighbors.

But it has not been enough. Tensions are still high, both sides misunderstand the other as much as ever, and trust is still shattered. This climate of distrust is conducive neither to an objective assessment of the agroenvironmental efforts of farm producers nor to a calm evaluation of the corrective measures that still need to be taken. It is an unhealthy situation, and we must rebuild the bridges. No society can move forward in a climate of hostility.

Several farmers testified before the Commission about the disapproval and over-the-top accusations that have been directed at them. They lamented society's lack of recognition for their work and its demands and worried aloud about the pernicious consequences this devaluation of their work foretold for Québec agriculture's future.

The Commission agrees that the Québec population knows very little about the agricultural sector and, as a result, does not always understand the true value of agriculture's many roles in our society.

RALLYING SUPPORT FOR A COMMON CAUSE

The Commission considers it of the utmost importance that Quebecers all share the same vision of agriculture and the food industry. It is essential that society support and respect the people whose job it is to feed the population. It is also important to educate the public about agriculture's socioeconomic role and contribution to land use dynamics. In return, agricultural practices in Québec and the actions of companies involved in agriculture, in whatever capacity, must reflect the values of Québec society. If Quebecers accept and abide by the fundamental principles of sustainable development, the entire agriculture and food sector must demonstrate its willingness to work toward that goal and behave accordingly. The Commission firmly believes that it is possible to rally Quebecers around a single understanding of agriculture in the broadest sense and a shared vision for its development.

The urbanization of the Québec population has broken the formerly close ties between consumers and producers, especially now that food distribution is a complex operation handled by large organizations from centralized warehouses, based on marketing strategies that mix products from all over the globe. Most city dwellers have a fuzzy image of agriculture closer to a bucolic fantasy than the agricultural realities of today.

Quebecers are visibly attached to their agriculture. They must also respect it. Granted, in our societies of plenty, food shortages are a vague notion. As the president of Solidarité rurale du Québec pointed out, "If agriculture ceased to exist in Québec, the grocery store shelves would still be full to overflowing." The support of a community or government for its agriculture is based less and less on this kind of fear. However, for as far back as memory stretches, no country in the world has deliberately opted to depend totally on imports to feed its population. All countries more or less strive to supply their own citizens with the food products they have a reasonable chance of producing themselves. The job of Québec farmers is to feed the population. This is not a slogan, it's a reality.

Rallying Quebecers in support of “their” agriculture implicitly calls for concerted action and concrete initiatives on the part of the four main protagonists involved:

- 1 **The Québec government**, which must reassert its lost leadership in agriculture and agrifood and rebuild its capacity for innovation and vision and its ability to bring all sides together and arbitrate major disputes as needed
- 2 **Farmers**, who must opt once and for all for sustainable development, commit more resolutely to consensus-building and dialog processes, and take very deliberate action to meet the expectations of consumers and citizens
- 3 **Processors and distributors**, which must invest in innovation and make available to consumers in Québec—and elsewhere—a diverse range of high quality food products that promote health and capture a larger market share for Québec products
- 4 **Consumer-citizens**, who, through their taxes and purchasing decisions, must support local agriculture and respect the people who labor to produce healthful food that is a pleasure to eat

FOOD SOVEREIGNTY

Many participants in the Commission’s public hearings advocated the concept of *food sovereignty* as a central guiding focus in crafting Québec’s future agriculture policy.

However, the concept’s scope, the expectations it raises, and the limits of what Québec could or could not do in agriculture if it implemented the principle of food sovereignty varied considerably depending on who was testifying.

Aside from a common denominator stated as “the right of peoples to define their own agriculture policy,” hearing participants’ understanding of the concept of food sovereignty differs on three major points: the level of border protection that would be permitted, the resulting export capabilities, and how complementary interests in food trade would be taken into account.

1. Protection of national markets

With regard to the domestic market protection that would be permitted in a world in which the concept of food sovereignty was universally accepted and applied, Union des producteurs agricoles (UPA) and several UPA federations believe it would be necessary to protect certain strategically important sectors, that is, allow the “regulation of national production and agricultural trade to achieve sustainable development objectives, determine [the] degree of food autonomy, and eliminate dumping in [the] markets [of such countries].”

In this sense food sovereignty is perceived as a counterweight, a bulwark against the trend toward excessive food market liberalization and against the WTO in particular. Supply management systems are a tangible application of this concept in Canada and illustrate the special treatment food products should receive in world trade agreements.

Union paysanne adds to those protections already cited measures that would ensure “local food production, access to land, water, and financing” and that would “protect against dumping and genetic pollution by GMOs.”

Moreover, Centrale des syndicats nationaux (CSN) points out that the notion of food sovereignty “must not become the new fig leaf for protectionism.”

2. Exportation

Opinions diverge most on the issue of how compatible the application of the food sovereignty concept would be with exportation. For CSN, “food sovereignty is not incompatible with trade; in fact, it promotes expanded trade. Food sovereignty initially encourages local agricultural and food production and, in a second phase, the export of surpluses and even export market-oriented production.” This point of view is shared by many participants, especially agricultural cooperatives and associations.

The organization Équiterre believes that “a food system based on imports and exports runs counter to the principle of food sovereignty... It is important that the government recognize that the primary purpose of agriculture, especially when it is supported by the public purse, is to feed the national population, not supply international markets to improve our trade balance.”

3. Other expectations

Many other expectations are raised as examples of the potential advantages of adopting the food sovereignty concept. Greenpeace sees it as a way to “minimize agriculture’s negative environmental impacts.” Others argue that countries would acquire the resources to control the quality of the food products marketed to their population; that is the view expressed by Centrale des syndicats démocratiques (CSD) and Faculty of Agriculture and Food Sciences students at Université Laval. Also mentioned, notably by Union des consommateurs, was the possibility of taking action on critical issues such as hunger, the control of agriculture by multinational companies, and public health threats.

Finally, food sovereignty is generally endorsed by people who challenge “industrial or productivist agriculture,” the neoliberal view of the economy and agrifood, the disappearance of farms, and junk food or who advocate broader anti-poverty policies, notably the “right to food,” cooperation with less developed countries, and the extension of fair trade, etc.

As we see, different stakeholders have different understandings of the concept of food sovereignty, depending on their own values or ideologies. The objectives pursued and the implicit expectations associated with this orientation sometimes diverge substantially. The concept also sparks a variety of hopes and ambitions. There are, of course, substantial areas of overlap, such as the importance of recognizing the right of governments to craft their own agricultural policies. But food sovereignty is sometimes asserted in absolute terms, in a world free of constraints, which clearly deviates from current realities. In an era of interdependence, what does sovereignty mean in real-world, practical terms?

With so many expectations, so many ideals, and so much ambiguity, how can the concept of food sovereignty rally the population in support of a single conception of agriculture and agrifood? To mobilize Quebecers, we must invite them to work together toward a conception of agriculture based on well-defined and widely shared values.

The Commission therefore considers it important to lend its support to key notions of food sovereignty:

- The need for a robust, sustainable agriculture sector in Québec
- The importance of making sure the Québec and Canadian governments have as much leeway as possible to craft agricultural policies that meet our specific needs and reflect our values and to defend the interests of citizens
- The need for farmers to earn a decent living from their profession
- The enormous value of exploiting the full potential of our agricultural heritage for food supply, land use, and economic development purposes
- The premise that the chief purpose of agriculture is to produce quality food for the Québec population, in accordance with sustainable development principles
- The complementary, supporting role played by international food trade in achieving this primary mission
- The need for Québec to reach out in solidarity to less developed countries

ATTRIBUTES OF THE AGRICULTURE OF THE FUTURE

What should the agriculture of the future look like?

In Québec, given our history, culture, climate, level of agricultural and agrifood development, and competitive advantages, the Commission believes that the agriculture of the future must

- Be multifunctional, that is, move beyond its role as a source of food
- Contribute to feeding Quebecers as its primary mission
- Be pluralist by supporting a diversity of companies and crops
- Be rooted in an entrepreneurial culture
- Be highly professional in its practices
- Embrace sustainable development
- Capitalize on its full potential

1. Multifunctional agriculture

Agriculture plays four decisive roles in Québec: it helps feed the population, provides a livelihood and lifestyle for people who decide to devote themselves to it, creates wealth and jobs, and plays a role in dynamic land use. That is why the Commission readily acknowledges the *multi-functional*¹¹ nature of agriculture.

Agriculture is at once an occupation, a lifestyle, and a viable business activity. It is an economic sector in the true sense of the word. That means it involves highly diversified activities that lead, via processing and distribution channels, to trade in Québec, Canadian, and foreign markets. Agriculture underpins the economies of many communities. It is also a sector of the future, built on knowledge, technology, and the desire to meet the increasingly diverse needs of a majority of the population, which has the means to eat and eat very well.

Agriculture is a resource and potential source of development for Québec. No prosperous country neglects its resources. On the contrary, each nation strives to manage them judiciously, based on its own values and leveraging its comparative advantages, to create wealth and raise the living standard of its people.

More than any other economic activity, agriculture is closely associated with land use. In some regions, agriculture and its associated activities are pretty much the only ones with real potential to spur sustainable development in many localities. In addition, agriculture provides the underpinning for several unrelated economic activities, such as tourism, and for a social and cultural life that could not thrive without it.

Agriculture has shaped Québec's rural landscapes, which have many distinctive features and are worth preserving and showcasing. Agriculture can contribute significantly to achieving societal objectives outside its own scope, such as the conservation of certain natural environments, the development of tourism-related activities, and the preservation of certain heritage sites.

2. Primary mission: helping to feed the Québec people

It is important to state clearly that the primary purpose of Québec agriculture is to provide a significant proportion of the Québec people's food. Agriculture remains and should be perceived first and foremost as a supplier of high quality food for the Québec population. That is its basic mission. Successfully fulfilling this basic responsibility is how the sector can better position itself to develop new markets. When it does, food exports, which are often economically necessary, become useful and socially acceptable.

3. Pluralistic agriculture

The Commission subscribes to the notion of a pluralistic agriculture sector, that is, one that is diverse in terms of facility size, production methods, and range of products. Different types of farms must coexist in the Québec countryside. First are medium-size farms that represent, as it were, the typical agricultural establishment. We should also find a greater number of much smaller operations, most specializing in more artisan productions or niche products. Finally, there is room for a smaller number of larger farms, offering so-called "commodity" foods and, in some cases, specialty products. Diversified in this way, agriculture can better meet the expectations of all citizens.

11. Multifunctional agriculture, a term first used by the UN in 1990, was advocated by a number of Commission hearing participants, though the concept's scope varied widely depending on who was testifying. The Commission is using the term as defined on this page.

It is estimated that almost 90% of Québec's agricultural production consists of undifferentiated food products for mass consumption. Produced mostly by food processors, they are the bread and butter of Québec agriculture and meet the needs of an overwhelming majority of consumers, who want quality food products at the cheapest possible price. We must therefore continue to support this type of production.

It is also important to support, more tangibly than we have in the past, other types of farms, which have decided to meet the demand of Québec consumers for differentiated products high in nutritional quality, to showcase the qualities of their local regions, to push specialty niche products, to increase the production of organic foods, and to expand authenticity guarantees, among other things. So-called "emerging" agriculture warrants support for its innovation, contribution to diversifying agricultural production, and potential to revitalize a number of rural communities. Lastly, Québec's agricultural mosaic would not be complete without so-called recreational farming, notably because of its potential to benefit many rural communities.

In short, the government and Québec society should support pluralistic agriculture in all its diversity, with farms of varying sizes committed to producing quality food that complies with strict environmental standards and is intended for sale first and foremost to the province's consumers. We consider this to be the foundation of a modern, innovative, and entrepreneurial agricultural sector.

4. Entrepreneurial agriculture

Regardless of size, a farm is an enterprise in the true sense of the word. Farmers head up operations whose organization shares all the characteristics of a small business. They invest capital in real property and equipment, plan the financing of their businesses based on anticipated revenues, manage human resources, and solicit expert advice, yet remain the sole decision makers and worry about the survival of their businesses. The market value of the average farming enterprise in Québec—\$1.4 million in 2006¹²—compares favorably with that of many small businesses. Farmers must see themselves as entrepreneurs, which they have, in fact, always been.

One of the main qualifications of entrepreneurs, whatever their business field, is management ability. This notion encompasses both occupational and specific skills. For the most part it consists of the ability to read the environment in which the company operates, anticipate changes that could affect the small business, and proactively seize apparent opportunities or minimize the impact of less favorable events. Entrepreneurs also have the ability to make the right choices among the many constantly being urged upon them. In sum, entrepreneurship is the know-how that enables people to accurately predict the future and continually improve the overall profitability of a business, despite inevitable fluctuations in the business environment.

12. STATISTICS CANADA, *Farm Financial Survey*, 2007, No. 21F0008XIF

The agriculture and food sector must meet these same demands. Entrepreneurial qualities and management skills are essential to success. Farmers and others involved in the agrifood sector will inevitably have to operate in an increasingly open, more fragmented, more complex, and more competitive world. Consumers will continue to expect ever more diverse and more frequently updated products, even while continuing to make purchase price a primary buying consideration. Consumers will also demand food produced by environmentally friendly methods and conducive to a healthful diet. Their expectations will offer growth opportunities for entrepreneurs quick to read market signals, just as they will deliver a nasty shock to those who fail to see the new trends coming.

That is why management skills must play an ever larger part in training programs, to prepare students for farming careers, and why the culture of entrepreneurship must be revived and promoted. The agriculture of the future will be more entrepreneurial than ever.

5. Highly professional agriculture

Few people are aware of the major role played by science and technology in the agriculture and food sector. Major breakthroughs have been made in recent decades, especially in agrology, farm equipment, genetics, animal health, food preservation, food processing, transportation, and inventory management, at each step in the food system chain. These scientific and technical advances have sharply boosted outputs and improved the quality of life of the sector's workers, while also requiring them to constantly broaden their occupational skills.

Technical expertise is not an end in itself. Neither is it the prerogative of big business. Many entrepreneurs involved in various emerging agricultural fields expect, and justifiably so, real benefits from science and innovation. In the agrifood sector as elsewhere, technical savvy has become a vital prerequisite to production and profitability. It is through innovation and more efficient means of production that farmers can raise their incomes and improve their quality of life. It is through higher productivity that food processors can raise wages and improve their employees' working conditions.

The word professionalization implies knowledge and skills. But professionalizing agrifood means more than just mastering the most recent technologies. It also and most importantly will strengthen the industry's ability to make the best choices in an increasingly complex world noted for its abundance of production, equipment, and technical options constantly on offer. This is especially important in an environment in which the use of biotechnologies is growing and posing new challenges. Likewise, an agricultural enterprise's success depends largely on the farmer's management skills. In food processing and marketing, professionalization is also essential to correctly gauge consumer expectations and develop the innovation capabilities to meet them.

6. Sustainable agriculture

The term sustainable development is interpreted in all kinds of ways. The official definition comes from a report of the UN World Commission on Environment and Development entitled “Our Common Future.” Sustainable is described as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” In applying this definition, which was incorporated into the Sustainable Development Act, the Québec government aims to achieve three objectives:

- Preserve the integrity of the environment to ensure the health and safety of human communities and the ecosystems that sustain life
- Promote social equity to support the full growth and development of every citizen, the ability of communities to thrive, and respect for diversity
- Improve economic efficiency, to create an innovative, prosperous, and environmentally and socially responsible economy

Applied to Québec agriculture, sustainable development requires the appropriate use of fertilizers and pesticides and other practices that preserve environmental quality so that the next generation inherits a healthful environment, capable of permanently supporting agriculture. Likewise, agriculture requires preservation of quality farmland, and thus a legislative framework in this regard.

Québec’s farmers have made considerable efforts and invested heavily over the last few years to comply with increasingly broader environmental regulations. The switch to sustainable development is well under way and now just has to be completed.

Moreover, farmers live in society and their labors must help foster a vibrant rural world in harmony with its economic and social environment. Agriculture can help drive the growth of various types of business activities, contributing to the vitality of rural communities. These expectations call for more participatory land use and development planning processes. They require non-farmer residents to respect the special nature of agricultural work and demand that farmers and other economic stakeholders pay attention to the effects of some of their activities on their neighbors’ quality of life.

Lastly, sustainable development also affects the viability and economic efficiency of the entire agriculture and food industry. Indeed, agriculture has to be profitable. So concerns about the viability of farms and their continued survival must guide public policies and the design of technical and financial aid programs. Like many other fields of endeavor, agriculture and agrifood rely on government support in the areas of risk sharing, development assistance, and regulatory compliance.

Government measures to support agriculture and food processing must be unambiguous about their aim of stimulating economically viable agriculture, while adapting to the specific needs of both sectors.

Viability is the ability to generate adequate, sustained income for farm operators, consistent with their financial and labor investments, despite fluctuations in the economy or losses caused by natural events. For food processors, it is the ability to expand in a competitive environment, stay in business, and meet reasonable employee and shareholder expectations—in short, sustain a normal business dynamic whereby agrifood companies generate independent revenue they can use to repay their loans, cover their operating costs, make long-term investments, and post profits. We are therefore talking about an entrepreneurial agriculture sector, made up of production and processing operations of various sizes, which opt to specialize or diversify their activities, shoulder their share of the risk, capitalize on innovations and business opportunities, and have the resources to grow and expand.

7. Agriculture that maximizes its full potential

Agricultural trade is far from new. As soon as many countries evolved past the subsistence farming stage, they sought to improve their lot and raise their people's living standard by exporting agricultural products to other regions or countries.

With its seven million consumers, Québec is a small market. For some types of food, it is clear that we have the land, soil quality, technologies, know-how, farms, processing capacities, and means to produce, in strict compliance with environmental standards, much more than what we need for our own consumption. We also offer products typical of or specific to Québec. No one disputes the value of exporting maple products to outside markets. We are even rather proud of our ability to do so. Likewise, we produce far more milk and dairy products than Québec can consume, and count in this case on the Canadian market, under the supply management system.

Obviously, exporting agricultural products is not the primary purpose of farming. And we are successful in export markets only insofar as we excel at home. We must, as they say, be prophets in our own country. Only by focusing on satisfying Québec consumers, who are unusually demanding when it comes to food quality and production methods, can our companies succeed in meeting the highest standards, growing, and gaining enough size and expertise to profitably sell their products outside Québec and penetrate other markets. We should also stress that, in order to meet the demands of Québec consumers, companies must often make investments they could not afford if they had to rely solely on the volumes produced for the domestic market. We have to contribute to expressing who we are, what makes us unique, and draw on our values and collective ambitions.

REFERENCE POINTS FOR A DEVELOPMENTAL VISION OF AGRICULTURE AND AGRIFOOD

A people's agriculture expresses its personality. Beyond the constraints of climate and biophysical environment, the way a society practices agriculture reflects its choices and shows a bit of who we are and what makes us different. The way we employ and protect farmland; our choice of crops, livestock, and production methods; and the diversity of our processing and distribution channels show how important we consider agriculture and food to be.

It will be easier to mobilize Quebecers to tackle major agriculture and agrifood challenges if they can perceive the personality and specialness of their agriculture.

What kind of reference points should guide changes in agriculture and agrifood as the sector evolves into an industry strongly supported by Quebecers? Which of our strengths should we build on? Here are our proposals:

- **Assert our difference.** Quebecers have many distinctive traits that set us apart in North America. They are reflected in many ways in agriculture and food. Our farms are smaller, we farm in a northern climate, and we have a relationship with food that stresses gastronomy and its festive side. In an era marked by uniformity and a leveling of personality, it is very much in our interest to cultivate our differences. Let's build on our northern agriculture, which mirrors our wide open spaces and Québec's other natural attractions.
- **Spur creativity.** Creativity is a long-standing trait of our artisans and entrepreneurs and probably one of the main strengths we should leverage in the future. We see very clear evidence on our farms of creativity in equipment and implements, which are cleverly adapted to accommodate needs specific to farming in Québec, and in original, inventive practices and procedures that show exceptional resourcefulness. The upsurge in artisanal cheese houses, our inventive production methods, and the regional products boom of the last several years testify to our creativity. On a broader stage, Québec companies have captured big market share in Canada and elsewhere through original, highly competitive products or manufacturing processes. The challenges of the future will test the creative resources of our entrepreneurs as never before, at every step in the agrifood chain. Let's look to the talent of our creative people who, in agriculture and other fields, are making a name for themselves all over the world. Let's build on our creativity.
- **Build on our modernity.** In several fields of endeavor, we as Quebecers have amazing scientific, technological, industrial, and artistic achievements to our credit, given the small size of our population. We are understandably proud of being among the world's best in certain sectors. The agriculture and food sector values modernity and emulates the modern approach. While exercising critical judgment concerning some scientific advances, agricultural and food artisans must make a firm commitment to innovation and to modernizing their facilities and management methods. This is the path of developed countries, which face the same agricultural challenges we do. Let's build on our modernity.
- **Cultivate excellence.** Quebecers are demanding. They are capable of setting high quality and performance standards and, in some fields, have shown they were prepared to put in the necessary effort to achieve their ambitious goals. The agriculture and food sector must bank on excellence, raise the bar, and set demanding goals. If it hopes to stand out in a world in which it cannot win the race to the bottom price, agrifood must raise the quality stakes and gamble on excellence. Even if the task is daunting, we must be the best. Let's build on excellence.
- **Stress a collective approach.** For reasons having to do with our history, Quebecers have felt the need to work together in groups. Cooperatives have successfully channeled this urge. So have labor unions in their own way. Agricultural producers have relied heavily on the collective approach and have reaped undeniable benefits. This collective vision, which must leave room for the development of a dynamic private sector, also explains the Québec government's stronger presence in the economy, especially in agrifood. Without disputing the need to review some of the systems and procedures set up to implement this collective approach, it is clear that it is a major, distinctive trait of our economic development and can function as a driving force for the future. Let's build on our willingness to work together.

By building on the above points, agriculture and agrifood should gradually evolve over the next 10 to 15 years toward the end points listed below. The sector would then be led by

- **Farmers proficient in their art, on the cutting edge of knowledge and expertise, who**
 - Earn most of their revenue from the market, while being able to count on government support programs in the event of natural disasters or to offset the disadvantages of northern agriculture
 - Pay close attention to changing consumer expectations
 - With the help of processors and distributors, sharply increase the share of their revenue earned from the sale of differentiated, high-added-value products, some of which win over Canadian and foreign consumers through their originality and quality
 - Fully implement sustainable development principles
- **Modern, profitable family farms** that feature
 - A very high proportion of medium-size, “human-scale” farms
 - More than the current number of small farms involved in organic farming, emerging cropping practices, and part-time, supplemental, or recreational farming, with potential to grow
 - A necessarily smaller number of larger, highly specialized facilities, including organic farming operations, that exploit domestic and international market niches and can compete with rivals from other countries
- **Food processors that**
 - Manage many small and medium-size businesses in every region of Québec, are creative, primarily target niche markets, and specialize in differentiated products, some of which they produce in large quantities for both the Québec and export markets
 - Revitalize rural areas through their investments and alliances with agricultural producers and other rural development stakeholders
 - Also head up a small number of large companies, leaders in their fields that possess research and development capabilities, that leverage, through a high degree of technical expertise and specialized labor, the full potential of our competitive advantages, and that earn profits in export markets that enable them to supply Quebecers with high quality products and help drive Québec’s economic development
 - Manage a few, highly innovative companies affiliated with research organizations and agricultural producers that transparently and ethically develop very high-added-value products derived from biotechnology and related sciences
- **Distributors that**
 - Are more diversified, notably as a result of more farmer’s markets, short distribution channels, and specialty networks offering regional Québec products
 - Seek out Québec products and make them available in major food chains
 - Guarantee the safety of the products they supply, apply the same high standards to foreign-sourced food, and meet the needs of consumers with special requirements
 - Clearly identify Québec and Canadian products and help provide consumers with pertinent and easy-to-understand information, especially concerning nutritional content and health effects

- **Citizens who**

- Are interested in agricultural and agrifood issues and seek out the information they need on the provenance and nutritional quality of their food
- Participate in debates in local, regional, and national organizations and in cooperatives, companies, unions, and other civil society organizations, especially discussions about food and how it is produced and shipped
- Demonstrate support for Québec's farmers and food processors through both their purchasing decisions and the positions they take

- **A government that**

- Provides fresh leadership supported by all
- Facilitates various initiatives and gives free rein to the inventiveness of entrepreneurs
- Consolidates and clarifies farmland protection legislation and facilitates the proactive application of local and regional land use and development powers
- Supports research, development, and innovation infrastructure and resources and relies on partnerships with the agriculture and food sector, especially in the foregoing areas
- Provides quality basic and continuing education and cutting edge information
- Helps strengthen knowledge and technology transfer teams and advisory services for producers and processors
- Takes decisive action in a timely manner, despite the difficulties involved, to deal with the threats that frighten us today, facilitate the choice of promising niches, and develop the kind of agriculture we have collectively decided to practice and support in Québec

It is an ambitious vision. It is up to us and us alone to make it possible. In summary, it is important that the agriculture of the future be a source of pride, both for people working in the agriculture and food sector and for society as a whole.

We will have an opportunity in the following chapters to elaborate on the concrete significance and actual impact of this vision of agriculture and to list the changes that must be made for Québec to successfully develop such as sustainable, dynamic, and diversified agricultural sector.

A new momentum must be set in motion, and it won't happen by spontaneous generation. A major requirement is learning to work together better. Consensus-building and joint action are the building blocks of success in modern economies. In an era of industrial clusters, value chains, and strategic alliances, each organization must make an overt effort to help us reach the targets we are aiming for.

Agricultural Production and Government Assistance



4

Québec's climate and biophysical soil characteristics make for ample pasture land, which encourages livestock farming. Nearly 75% of farm output in Québec is attributable to livestock, while in the rest of Canada the figure is 55%. Québec farmers began focusing on what would become their main specialty—dairy production—in the late 1800s.

QUÉBEC AGRICULTURAL SECTORS

Québec's primary agricultural sectors were the following in 2006:

Table 2

PRIMARY AGRICULTURAL SECTORS IN QUÉBEC (2006 CASH RECEIPTS) (K\$)

LIVESTOCK PRODUCTION	2006	%	2005	%
Dairy	1,848,647	35	1,847,225	34
Pork	844,944	16	1,030,220	19
Poultry, eggs, turkey	574,937	11	586,651	11
Others	576,203	11	555,565	10
Total livestock	3,844,731	73	4,019,661	74
CROP PRODUCTION	2006	%	2005	%
Corn, oilseed and cereal crops	450,724	9	423,620	8
Market garden produce (vegetables and potatoes)	425,192	8	394,342	7
Flowers and nursery plants	240,965	5	249,701	5
Fruits and other cultivars	143,207	3	228,897	4
Maple products	152,256	3	151,673	3
Total crops	1,412,344	27	1,448,233	26
Total market receipts	5,257,075	100	5,467,894	100

Percentages have been rounded off.

Source: STATISTICS CANADA, Catalog No. 21-011-X, 2007, and MAPAQ, *Activité bioalimentaire au Québec, Bilan 2005*, Appendix, p. 41

Farms in Québec, like those in other industrialized countries, have grown larger and more specialized. Between 1961 and 2006, the number of farms dropped from 95,777 to 30,675. In 1941, there were 155,000. Farms have modernized, profited from substantial investments, and increased their returns substantially. Table 3 examines changes in the structure of Québec farms over the past 45 years.

Tableau 3

ÉVOLUTION DE LA STRUCTURE DES FERMES QUÉBÉCOISES, 1961 et 2006

	1961	2006	VARIANCE
Farmland area (M ha)	5,746	3,463	-40%
Growing area (M ha)	2,110	1,933	-8%
Average area/farm (ha)	60	113	+88%
Number of farms	95,777	30,675	-68%
Growing area/farm (ha)	22	81	+268%
Capital per farm (\$)	17,000	865,164	+4,595%
Cash receipts per farm (current \$)	4,359	202,060	+4,535%

Source: STATISTICS CANADA, *2006 Census of Agriculture*, Ottawa, 2007

In 2005, about one-third (34%) of farm enterprises reported sales over \$250,000, but accounted for 80% of agricultural income, a phenomenon observed in other sectors too. A little over one-quarter (26%) had sales between \$100,000 and \$250,000. The others, or about 40% of all farms, divided up as follows: 10% had income between \$10,000 and \$25,000, 15% reported income between \$25,000 and \$50,000, and a further 15% had sales between \$50,000 and \$100,000¹³.

The dairy, poultry, and egg sectors are subject to *supply management*, the program for regulating supply in the Canadian market. Supply management involves establishing a quota for each product, based on demand, and imposing elevated customs tariffs on imported products. In 2006, 46% of all Québec farm revenue was from products subject to supply management.

While Québec agriculture remains largely focused on mass markets, there have been attempts to diversify. More new fruits (cranberry, blueberry, small fruits) are being grown, and new livestock sectors are developing (goats, large game, ducks, rabbits). Farming and animal husbandry practices continue to evolve, and organic farming is becoming increasingly popular.

Farm profits are modest: \$20,000 per farm between 2002 and 2006. However, in 2006, those with sales of \$250,000 or more reported average net income of \$116,888.

Total earnings for farm families are generally equivalent to those of other Québec households, according to 2001 census data.¹⁴ Statistics Canada found that for the year 2004, average total income for Québec families with unincorporated farms was \$69,577. However, of that amount, 62% (\$43,200) was actually earned outside farming.¹⁵

These high levels of nonagricultural income are tied to the fact that farm spouses increasingly hold jobs outside of farming, and farmers themselves receive income from part-time nonfarming work or other sources (forestry, pensions, investments, etc.). This situation is not unique to Québec. In Ontario, agricultural earnings represent only 17% of farm household income. In the United States, according to the USDA, the proportion of household income generated outside the farm was 85% in 2006.

A further important characteristic of farming operations must be noted: capital accumulation. In 2006, the net value of the average farm was \$1,039,650.¹⁶ This figure grew \$226,329 between 2001 and 2006.

THE CURRENT STATE OF AGRICULTURE

1. Agriculture in upheaval

In many respects,
Québec agriculture is
in serious trouble
—in crisis, even.
Income is stagnant
or rising more slowly
than operating costs.

Farming depends increasingly on government financial support, and farming debt has doubled over the past 10 years. Some sectors run chronic deficits, year in and year out, and rising quota values pose serious problems for inter-generational farm transfer.

13. STATISTICS CANADA, *Whole Farm Financial Structure by Revenue Class*, 2006

14. In 2001, average reported household income was \$59,696 for farm families and \$59,297 for Québec families overall. The most reliable household income statistics come from Statistics Canada censuses; 2006 data will not be available until 2008.

15. STATISTICS CANADA, *Whole Farm Financial Structure by Revenue Class*, 2006. For unincorporated farm operations, total revenue adjusted to reflect capital cost allowances (CCA)

16. STATISTICS CANADA, *Farm Financial Survey*, 2006. The average Québec farm had assets of \$1,410,612 and liabilities of \$370,962, for a net worth of \$1,039,650.

The overall condition of Québec agriculture can be summed up as follows:

- Thirty per cent of farms are unable to meet their expenses¹⁷
- Farmer indebtedness increased from 28.4% in 2001 to 32.2% in 2005. In comparison, the rates were 20.4% in Ontario and 11.4% in the United States in 2005.¹⁸
- In 2004, the average unincorporated farm received twice as much in government support as it cleared by selling its products
- The main income support program for farmers, Farm Income Stabilization Insurance (FISI), has paid out \$5.5 billion during the past 10 years to compensate for revenue that did not cover production costs
- La Financière agricole du Québec, which administers agricultural support programs, and FISI funds are running deficits that should reach \$1 billion in April 2008¹⁹

These difficulties persist despite the fact that over 40% of Québec agriculture is subject to supply management. To a large extent, the survival of agriculture depends on protective measures against competition from imported products, such as customs tariffs that run from 154% (turkey) to 298.5% (butter).

Of course, focusing on overall figures and averages means a multitude of situations can be overlooked. Obviously profitable farms exist, in various sizes. Crises such as bovine spongiform encephalopathy (mad cow disease) have on occasion temporarily destabilized profitable farms, but with sufficient assistance they are able to recover financially. So the issue of agriculture and government support requires careful, sensitive analysis in order to recommend the best possible strategies.

Nevertheless, it would be wrong to downplay the extent of agriculture's structural problems, and it would be erroneous to assume that some of these issues can be resolved simply by extending current financial assistance programs or increasing budgets. Coop fédérée, in a brief to the Commission, referred to the pork industry in expressing the need for change: "It [the pork industry] will have to go through a major period of upheaval and restructuring at both the farm and processor levels. The demands for sustainable development in Québec agriculture clearly establish parameters that must be met so that this industry's future is as bright as its potential."

2. Attributes of agriculture

Let's briefly compare the qualities that distinguish present day Québec agriculture to the attributes we want in the future. Is agriculture in Québec professional, entrepreneurial, pluralist, multifunctional, sustainable, aimed first at feeding Quebecers, and exploiting its full potential?

There is no doubt that a high degree of **professionalism** is needed in agriculture today. Farming methods and knowledge have expanded beyond the traditional. Farmers are professionals—business owners and managers who rely on scientific and technical knowledge and progress. Professionalization is affecting farms of all sizes, as knowledge transfer and ongoing training further solidify the professional approach to farming. Québec farmers have nevertheless demonstrated in recent years their remarkable ability to adapt to change.

Is today's agriculture **entrepreneurial**? Farmers are *de facto* entrepreneurs, running businesses, but Prof. Raymond Levallois of Université Laval, who has done extensive studies of Québec farm management, notes large shortcomings in this regard. He states that Québec farmers have "a demonstrated tendency to overcapitalize unproductive investments (machinery and buildings) and have difficulty balancing inputs and outputs economically (in 2004, at least 50% of Québec dairy farms were found to have wasted feed)." Professor Levallois concludes that "Québec farmers are technicians rather than business managers."²⁰

17. AGECO GROUP, *Élaboration d'une typologie des agricultures au Québec*, October 2007

18. STATISTICS CANADA, *Statistiques économiques agricoles*, Tableaux 21-011-XWF, 21-012-XWF, 21-013-XWF, 21-014-XWF and USDA, Economic Research Service, *Balance sheet of the US farming sector et Farm income and costs*

19. The FISI fund deficit for various sectors has reached \$605 million, and La Financière agricole du Québec's cumulative operating deficit is expected to be \$342 million at March 31, 2008.

20. Raymond LEVALLOIS, *Réflexions sur l'agriculture québécoise : l'agriculture québécoise est en crise* [presented to Commission sur l'avenir de l'agriculture et de l'agroalimentaire québécois], August 2006

Today's agriculture is **pluralist** in some regards, such as diversity of farm sizes. While 25% of farms earn less than \$50,000 annually, 41% report income between \$50,000 and \$250,000, and 34% take in over \$250,000 per year.

Québec's diverse production also makes its agriculture pluralist, although individual farms specialize in individual areas. While few farms are truly "all purpose," the range of crop and livestock sectors, when all is said and done, is impressive.

In terms of agricultural policy, Québec farming's pluralist character falls short on three counts:

- There is scant support for small-scale farming operations, and entrepreneurs who want to launch such businesses encounter big obstacles
- Emerging sectors—those that can help agricultural diversification—receive little assistance in the form of research, technology transfer, advisory services, training, and financial support. Organic farmers, for example, have had to experiment on their own—at their expense—to discover effective production or marketing methods. The situation is similar for berry growers and goat and large game farmers, as it is in nearly all emerging sectors.
- The focus on midsized family farms does not actually translate into real financial assistance. On the one hand, small farms that wish to become midsized should be encouraged to do so; on the other hand, caps should be placed on financial assistance for extremely large farms.

These shortcomings must be remedied if Québec agriculture is to be truly pluralist.

Agriculture **feeds Quebecers first**. Many presentations made during Commission hearings implied that a large proportion of Québec farm production is destined for export, and that this trend accelerated sharply in recent years. But that perception does not square with reality. Québec sold 12% of its production on the international market in 1996, and 18% in 2006. Adding sales to other provinces, 53% of farm income²¹ comes from selling processed products in the Québec market. It should be emphasized that processing accounts for 72% of farm income in Québec, compared to only 54% elsewhere in Canada. Economic spinoffs from farm production are therefore all the more significant.

In all likelihood, we can do better. Strategies to identify, produce, and process products that better satisfy consumer expectations can help Québec gain market share. These strategies are part of a number of solutions that will be covered in later chapters with regard to marketing mechanisms, food processing, product differentiation, identification of product origins, and grocery distribution. The domestic market's leverage effect on farm production no doubt can—and certainly should—be increased.

We also can hope that by focusing on certain niche export markets, Québec agriculture will be able to accelerate the **development of its true potential**. For example, while Québec represents only 22% of Canada's population, it produces over 40% of the milk and dairy products consumed in the country. Producers are able to introduce new, highly nutritious dairy products for Québec consumers largely due to profits from sales outside the province.

21. Based on manufacturing shipments. From STATISTICS CANADA, *Canadian International Merchandise Trade*, and INDUSTRY CANADA, *Monthly Survey of Manufacturing*

Québec has not sought to profit from its **multi-functional agriculture**. Just as increases in farm size have considerably reduced the number of farms, agricultural specialization has reduced the number of “all purpose” farms. Complementary activities have not been well developed, nor have they benefited from technical support and adequate financing. For instance, agroforestry’s potential has not been fully exploited. Agritourism has been restricted, due primarily to narrow interpretations of the *Act respecting the preservation of agricultural land and agricultural activities*. Producer/processors have not received enough support, and the food processing sector has not taken advantage of regional development opportunities. And rural areas, in particular, have not been managed on a truly regional basis, that is, with concern for dynamic land use. A multifunctional vision of agriculture calls for policies and support measures that encourage interrelationships between agriculture and other economic, recreational, cultural, and social activities in rural communities.

At present, Québec agriculture has not yet fully committed to mid or long term **sustainable development**. Economic viability is problematic, agricultural practices do not always respect the environment, and some projects give rise to social acceptability concerns.

Québec agriculture is obviously at the mercy of factors beyond its control, such as fluctuating international prices for farm commodities, foreign competition, global business agreements, protective policies of other countries, and epidemics that affect prices.

Farmers also must deal with societal factors, coping with environmental demands as well as society’s approval criteria for development projects and concerns about coexistence, to name only a few. Government can help farmers alter their practices to better comply with society’s demands.

Certain internal factors hinder farms’ ability to become fully competitive and profitable. Among these factors, which we will discuss again later, are quota price increases; difficulty reading the market; lack of incentive to increase productivity, switch to new crops or livestock, or develop differentiated products; difficulty repositioning in the face of today’s highly fragmented consumer demand; rigidity of some aspects of the marketing system; and lack of dialog within the agricultural sector. Similarly, there do not seem to be sustained cost reduction efforts in certain supply-managed sectors; the fact that wholesale milk prices are twice as high in Québec as in the U.S. should be cause for concern.²²

Government financial support programs generally reinforce these deficiencies rather than remedy them. Yet while agriculture and agrifood have little control over their external environment, they are very capable of acting internally. And they must—the situation is urgent.

Farmers also have taken significant steps to make their efforts “greener.” Investments and changes in farming practices have reduced environmental impacts. As shown in the chapter on the environment, activities associated with certain farming sectors are still affecting ecosystems and water quality. For agriculture to be 100% environmentally friendly, these practices need to become progressively compatible with soil preservation and water quality requirements.

22. 100 kg of milk costs USD \$58.00 in Canada and USD \$28.00 in the U.S., according to *Bulletin de la Fédération internationale de laiterie*, Brussels, 2007

Lastly, in agriculture as in other business sectors, there must be social acceptance for projects of a certain size. We have seen rising tensions between farmers and citizens, particularly as regards certain pork industry projects. The updating of master plans or projects within certain drainage basins has also revealed significant differences between farm concerns and the general public. Sustainable agriculture must make room for more regular, calmer dialog, and both citizens and farmers need to accept this new reality.

3. Marginalized or underexploited sectors

Ornamental horticulture developed outside of traditional agriculture. Few financial support programs have been designed to support and stimulate this segment of the agriculture and agrifood sector.

Fédération interdisciplinaire de l'horticulture ornementale du Québec noted at Commission hearings that "Despite its strong market potential, Québec ornamental production represents only 12.1% of Canadian ornamental production, and its growth is stagnant. [...] While this sector generates 4.3% of agricultural income, [it] receives only about 1% of MAPAQ transfer funds."

Yet this dynamic sector comprises some 420 growing operations, nearly 2,000 sales outlets (garden centers, florists), and 1,500 service providers (landscape design and maintenance), and it is responsible for over 33,000 jobs, in the majority of Québec regions.²³

Ornamental horticulture has experienced annual growth of 10% for 25 years. It is estimated that gardening is a hobby for over two million Quebecers.

Technically, Centre d'expertise en horticulture ornementale du Québec offers growers technical and economic training in the form of advisory services and a production database that receives MAPAQ financial support. HortiCompétences, a sectoral labor committee established in 2005 with the help of Commission des partenaires du marché du travail and Emploi-Québec, works on horticultural training and human resources issues.

Especially since 1998 MAPAQ has recognized the place that ornamental horticulture holds in the agrifood chain. The sector remains somewhat on the margins, however, and is not eligible for the financial support and income stabilization programs that benefit numerous other agricultural sectors.

Ornamental horticulture must be seen as a component in its own right within the agriculture/agrifood sector and be given the technical and financial support that goes along with such recognition.

Fédération interdisciplinaire de l'horticulture ornementale du Québec put the following challenge to the government and the agricultural world: "How can we change preconceived ideas about ornamental horticulture? It's true that the industry isn't part of edible agriculture, but it is important for human mental and physical well-being, it contributes greatly to the environment, and it serves as a significant economic driver and job creator, all areas combined. What's more, people embrace this industry, which has sizeable development potential." The Commission shares this opinion completely.

Until now, Québec agricultural policies have paid little heed to **greenhouse growing**. This is astonishing when you think about it. Some foods that are part of our regular diet cannot be grown year round because of our northern climate—yet they can be raised in greenhouses, letting us prolong the growing season.

23. MINISTÈRE DE L'AGRICULTURE, DES PÊCHERIES ET DE L'ALIMENTATION DU QUÉBEC, 1999

There are 775 active greenhouse operations in Québec. In 2005, their vegetable sales were \$62 million and their horticultural sales, \$165 million. Between 1993 and 2005, greenhouse production revenue grew 83.3% in Québec and 230.8% in Ontario. Noting this fact, Syndicat des producteurs en serre du Québec asserted at Commission hearings that “Québec has a lot of catching up to do and needs to make special efforts to better develop, financially support, and integrate greenhouse production into its main agricultural policies.”

As the following chapters will show, a number of Québec government strategies and action plans on health, healthy eating, and provision of the Québec market should spur the agrifood sector to increase greenhouse vegetable production, which complements market garden farming. Syndicat des producteurs en serre du Québec argued before the Commission for a policy of *bold integration* whereby public authorities would help businesses play much more visible roles in greenhouse vegetable production, thus making tangible contributions to joint food and health action plans. Action is needed on the energy, advisory, and financial fronts, as well as to help market and distribute greenhouse vegetables to grocery stores and the hotel/restaurant/institutional (HRI) network.

MAPAQ, together with others in the sector and ministries involved with health and food, must develop a greenhouse development strategy.

Very few organic farmers benefit from Québec government support. Yet this distinct type of agriculture is increasingly appreciated by society, as more consumers seek out organic products.

It is estimated that 85% of the organic products sold in Québec come from outside the province. The Québec government must provide more tangible support to help **organic farming** attain the stature that consumer demand amply justifies. With organic products increasingly popular in developed countries, strengthening organic growing in Québec may prove a boon to exports in some cases.

Action is needed on several fronts to shore up the organic sector, particularly

- Startup assistance for organic farmers
- Help for those transitioning from conventional to organic growing
- Research and advisory services
- Development of organic product processing
- Marketing
- A more ambitious approach to organic labeling and protected appellations so consumers can be sure they are buying organically produced products

GOVERNMENT SUPPORT FOR QUÉBEC AGRICULTURE

1. Broad and significant support

Through various means, all developed countries support agriculture. Whether by regulation, tariffs, price support, or direct aid to farmers, governments attempt to keep their home agricultural sectors viable. Québec is no different. Given Québec’s northern climate, it would be practically impossible to farm competitively without government support. Very few question the need for government support of agriculture. There may be different opinions about the extent of government contributions and support measures and how they are managed, but there is clearly consensus that agriculture needs a helping hand.

Government assistance for agriculture and agri-food—and farmers themselves—comes in many forms. General programs support research, innovation, and training. (These should not be confused with other programs tied more closely to agriculture, which benefit society as a whole and should not be considered support measures. This is the case, for example, with food inspection, animal health, product certification, and farm product labeling.)

Another form of assistance is direct payments to farmers, which come in two forms—subsidies tied to specific activities (cofinancing an animal waste storage facility, for example) or particular aspects of agriculture (reimbursement of property taxes) and payments under certain insurance and income stabilization programs, whose cost is shared by farmers and the government.

According to Statistics Canada, Québec farmers received direct payments of \$725 million, \$722 million, and \$838 million in 2004, 2005, and 2006 respectively. Table 4 shows the breakdown of payments under the main financial aid programs.

Table 4

NET DIRECT PAYMENTS RECEIVED BY ALL QUÉBEC FARMERS²⁴ (GOVERNMENT CONTRIBUTIONS) (IN \$MILLION)

	2004	2006
Canadian Agricultural Income Stabilization Program (CAIS)	7.0	181
Farm Income Stabilization Insurance Program (FISI)	452.0	407
Crop insurance	41.0	30
Other payments ²⁵	122.0	69
Property tax remissions	83.0	100
Interest remission	3.4	2
Other federal programs ²⁶	17.0	49
Total	725.4	838

Source: STATISTICS CANADA, *Direct Payments to Agriculture Producers, Agriculture Economic Statistics*, May 2007, catalogue no. 21-015-XIF

To these amounts must be added \$67 million in Canadian government tax assistance and \$136 million from the Québec government, primarily for capital gains exemptions, tax exemptions on capital, and partial reimbursement of fuel taxes. In short, Québec farmers received direct aid in the order of over one billion dollars in 2006. Over the past 25 years, government programs for farmers grew 248%, or 5.1% per year on average.

2. Substantial assistance compared to elsewhere

How does financial assistance provided to Québec farmers compare to that in other provinces and countries?

In 2007, MAPAQ performed a comparative analysis of government intervention in agriculture and agri-food in Québec and Ontario and concluded that, excluding supply management and based on farm receipts, Québec farmers would have received \$179 million less in direct payments per year from 2001 to 2005 had they been paid in the same proportion as their Ontario counterparts.

How does this compare to other countries that provide similar high levels of support to farmers? The Organization for Economic Cooperation and Development (OECD) has numerous statistics on the agricultural support its 30 member countries offer. It has developed an index titled *Producer Support Estimate* (PSE) that allows comparison of the overall aid offered farmers by these developed nations. The index considers all direct and indirect government aid²⁷ for farmers. This measurement tool was developed specifically to allow comparisons between countries.

24. Amounts shown are net payments to farms, after deduction of farmer contributions. As this is an accounting exercise, these are amounts paid during the year in review, not amounts owed for that year. The \$7 million figure for CAIS program support for the year 2004 reflects the fact that payments were made at later dates in 2005–2006 (the actual figure was \$157.5 million).

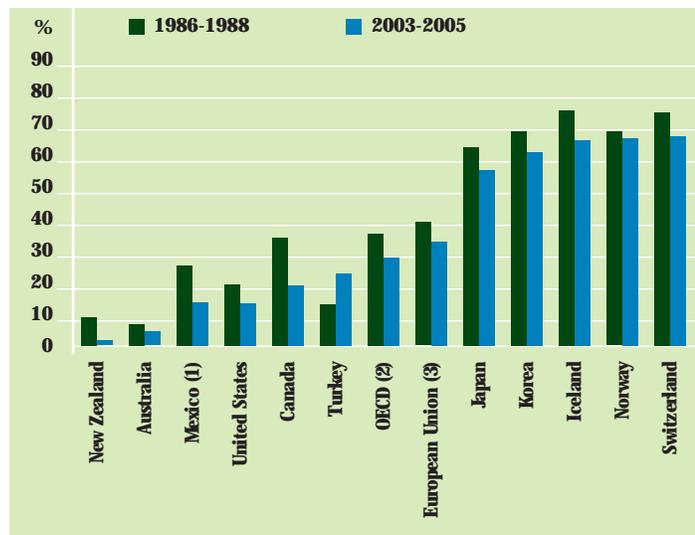
25. In particular, the special program for BSE (mad cow disease) and Prime-Vert

26. Net farm income stabilization account (predecessor of CAIS) and Canadian Insurance Program

27. The OECD model considers mechanisms like supply management, which contribute to some price regulation.

Table 5, which depicts government support for farmers as a portion of gross farming revenue, shows how Canada compares to other countries where agriculture raises similar trade issues.

Table 5
GOVERNMENT SUPPORT FOR FARMERS
AS A RATIO OF GROSS FARMING REVENUE (%)



(1) For Mexico, 1986–1988 is replaced by 1991–1993.

(2) Austria, Finland, and Sweden are included in OECD totals for all years and in the EU beginning in 1995. Hungary, Poland, the Slovak Republic, and the Czech Republic are included in OECD totals for all years and in EU totals beginning in 2004. The OECD total does not include six EU countries that are not members of the OECD.

(3) EU12 for 1986–1994, including the former GDR from 1990; EU15 for 1995–2003; EU25 beginning in 2004

Source: OECD, PSE/CSE database, 2006, cited in *Agricultural Policies in OECD Countries: At a Glance 2006*, Paris, OECD Publications, 2006

Canada's level of farm support is slightly lower on average than that of OECD countries. The level is higher than in the United States and less than in European countries. It would be very difficult to establish a producer support estimate (PSE) for Québec. It should be noted, however, that Québec farmers can expect greater financial aid than their peers in the rest of Canada. Québec government support for agriculture is comparable to that of a large number of developed countries.

3. Primary financial aid programs

Now let's have a look at the primary financial aid programs available in Québec:

The **Canadian Agricultural Income Stabilization Program** (CAIS) constitutes the government's first level of intervention to improve and stabilize farm revenue. It is an insurance type of program, with shared costs. CAIS is universal in nature: all farm production is eligible, although certain restrictions apply under supply management. The program's objective is to ensure relatively stable, decent income for farmers, despite market price fluctuations.

In 2003, Québec farmers contributed \$10 million and the government²⁸, \$219 million. CAIS, while a federal program, is administered by La Financière agricole du Québec, which manages the bulk of lending, insurance, and subsidy programs for Québec farmers.

The purpose of the **Crop Insurance Program** introduced in 1959 is to mitigate the impact of natural disasters and uncontrollable hazards: floods, droughts, windstorms, insect devastation, etc. It too is administered provincially by La Financière agricole du Québec. The Canadian and Québec governments pick up 60% of costs. As its name indicates, the program applies only to crops, including various cereals, fruits, market garden crops, vegetables for processing, honey, flax, potatoes. Farmers' dues are based on farm type and level of insurance coverage selected.

In 2005–2006, this program insured over 13,500, or 44%, of Québec farming operations for a value of \$892 million. Farmers paid \$49 million in dues and received \$56 million in compensation. It should be noted that the crop insurance fund has been in the black since 1988 and has over \$75 million in reserve, and is therefore considered balanced.

This program plays an invaluable role and must be maintained. The federal government is considering extending it to those who raise live-stock; the Commission urges that it go this route.

28. This government contribution is shared 60% by the federal government and 40% by the Québec government.

Property tax remissions are payments the government makes on behalf of farmers to municipalities, covering a large portion of municipal and school property taxes.²⁹ These remissions represent \$100 million annually. For purposes of municipal taxation, industrial farm machines are exempt from property tax, as are land and farm buildings, which are considered tools. Because this could result in substantial shortfalls for municipalities, the government has for many years extended compensation to farmers.

The **Farm Income Stabilization Insurance Program (FISI)** is by far the Québec government's biggest financial aid program. Established in 1975 and administered by La Financière agricole du Québec, 67% of its financing comes from the government and 33% from farmers. The government contribution is actually higher since it also covers all administrative expenses on behalf of La Financière agricole, which were \$57.8 million in 2006–2007. In 2001, the government agreed to provide La Financière agricole with \$305 million yearly for 7 years to cover all Québec programs that it administers. It should be noted that FISI eligibility does not extend to supply managed sectors, which already benefit from special protection against foreign competition.

The importance of farm income stabilization insurance as a pillar of financial aid for Québec agriculture deserves detailed analysis, presented on pages 57 to 63.

Agricultural Financing

Overall indebtedness of Québec farmers grew to \$10.5 billion in 2006. Banks and caisses populaires granted farmers loans worth \$8.5 billion. Nearly half the amount owed (\$4.1 billion) was guaranteed by La Financière agricole du Québec. These were long term investments. Farm Credit Canada also grants loans to farmers; its portfolio stood at \$1.1 billion in 2006. Additionally, farmers owe \$668 million to suppliers of agricultural inputs.³⁰

La Financière agricole is a major player in the field. The loan guarantees it offers lending institutions—up to \$5 million per farm—often constitute a key condition for access to credit. In 2007, 15,812 clients—or more than half of all farmers—took advantage of La Financière agricole financing programs. Despite the financial difficulties the sector has encountered in recent years, the proportion of farms in arrears on loan payments was 5.5% as at March 31, 2007, compared to 4.7% in 2000–2001. In 2007, 4.4% of Farm Credit Canada loans in Québec also showed arrears. This federal organization's delinquency rate for all Canadian farmers was 2.6% in 2007. The bankruptcy rate is relatively low in farming. Between 1992 and 2006, there were 45 farming bankruptcies on average per year. In 2006 there were 19,672 bankruptcies in Québec in all sectors combined.

29. Payment calculation methods for 2007: 100% of the first \$300 in municipal and school taxes; 70% of the all amounts after the first \$300; and 85% of the amount of municipal tax applicable to land valued at over \$1,533 per hectare. Payments are made in the form of credits applied by the municipality to tax owed by the farmer. Credits are paid to municipalities by MAPAQ.

30. To complete this picture, it is necessary to add \$130 million in private insurance and finance company loans, and \$75 million in advance payments from the federal government to certain farmers waiting to sell their products.

Aid for Farm Succession

La Financière agricole du Québec offers aspiring farmers financial advisory services; grants of \$20,000 to \$40,000, depending on applicant education levels; and a range of loans with favorable conditions. Last year 355 beginning farmers obtained \$9.9 million in such support. La Financière agricole also extended them loan guarantees in the amount of \$89.2 million. In addition, 63 new farms started up with assistance from the financial aid program, for a total of \$870,000.

In the eyes of those outside the farming and agrifood sector, subsidizing farm succession may seem overly generous. However, getting started in farming requires a big upfront investment, and return on capital is low. The financial aid currently in place is essential for intergenerational transfer. It may even be necessary to increase access to such support.

La Financière agricole du Québec is by far the prime institution for farm succession aid. Despite this, it provides only about 60% of startup financing for beginning farmers. It is estimated that of the 600 to 800 young farmers entering the field each year, La Financière agricole gives subsidies and loans to approximately 410 of them.

There are a number of reasons for this: beginning farmers may not possess sufficient training according to La Financière agricole standards; some farms are handed down within families rather than sold; small-scale startups require low capital investment; financing is handled by integration enterprises; applicants find it hard to offer minimal guarantees to financial institutions; etc.

In 2006, one out of every three Québec farmers was over 55 years of age. Only 15% of farmers were under 40. According to the UPA's Fédération de la relève agricole, if Québec hopes to retain over 30,000 farms mid to long term, nearly 1,100 young farmers need to enter the field each year. The number is currently closer to between 600 and 800, and this figure has not grown for several years. The shortfall is substantial.

However, the situation in Québec is better than elsewhere. While the replacement rate was estimated at 89.6% in Québec in 2006, it was 49.1% in the rest of Canada, 42.1% in the United States, and 14.1% in Europe³¹.

It is estimated that more than one-quarter of farms facing intergenerational transfer do not have—within their immediate or extended families—persons willing to take on the job. The number of nonfamily transfers, which account for only 10% of new farms, will therefore increase. These young farmers are fortunately well prepared: 90% of those taking part in nonfamily transfers hold postsecondary or university degrees, compared to 72% of those involved in intrafamily farm transfers.

Attempts to establish a bank of land or farms designated for transfer have been made throughout Québec, but all have been abandoned due to the complexity of managing such property banks. The underlying problem with agricultural transfers resides not so much in farm availability or La Financière agricole eligibility requirements, however complex they may be. Many other key factors are at work, including

- Farm prices: Average farm asset value increased from \$287,000 in 1984 to \$1,400,000 in 2006. These prices are inflated considerably by increased quota values in sectors under supply management.
- Investments to be made. Farming generally requires five dollars of inputs to generate one dollar in gross revenue, while in the entire manufacturing sector, the ratio is on the order of 1:1.
- The low return on assets limits borrowing capacity.
- The reluctance of some younger people to pursue studies preparing them for farming careers prevents them from taking advantage of these programs.
- Restrictive interpretation of the *Act respecting the preservation of agricultural land and agricultural activities* prevents or complicates the startup of small-scale farming operations or those that depart from prevailing models.
- Most new farm operations are ineligible for income support or insurance stabilization programs.
- Some farming segments have come to be viewed in a somewhat lesser light in recent years, and working conditions in agriculture are difficult.

31. J. TONDREAU, D. PARENT, and J.-P. PERRIER, *Transmission de la ferme familiale d'une génération à l'autre : situation au Québec et regard sur le monde*, 2001

- Even though 17% of agricultural income comes from farms with integration contracts, there is a very negative perception in farming circles and society of vertical integration whereby certain types of farms contract with an organization that supplies inputs and generally buys their products

In short, farm succession needs action on a number of fronts.

GOALS AND DEFICIENCIES OF THE FARM INCOME STABILIZATION INSURANCE PROGRAM

The purpose of FISl is to guarantee farmers a positive and stable net income. Compensation is paid when market prices are lower than established production costs. In this sense, FISl supplements the Canadian Agricultural Income Stabilization program. Theoretically, it is also an insurance plan.

Farmers have drawn tremendous benefits from this program. In their eyes, it is the Québec government's flagship program. Those who are eligible for it have seen their income stabilize and have been able to weather very serious crises (e.g., mad cow disease and successive crises that have affected swine production since 2003), because the program guarantees stable, foreseeable income. FISl was repeatedly praised by Commission witnesses and the farmers unions that have benefited from it. UPA applauds the *appropriate, foreseeable funding* FISl provides. Local unions in the Centre-de-Portneuf and Québec Jacques-Cartier regions maintained that "Without the income security program in the areas we represent, a major portion of production would disappear." It should be pointed out that farm income stabilization insurance has reassured financial institutes considerably, with the result that eligible farmers have been able to obtain funding to help them modernize their facilities.

The Québec program is not universal—it does not apply to all farms. FISl is based on relatively complex production cost formulas. For each production unit, it considers market income, variable expenses, fixed costs, interest on loans, remuneration of farmers, and depreciation.

Program operation, however, has gradually diverged from the program's original purpose and objectives. This situation must be examined more closely.

1. Nature of the plan's "insurance"

FISl is supposedly an insurance plan, but certain types of production have received compensation from FISl for each of the last ten years. This is the case for lamb (which received compensation totaling \$158 million during this period), feeder calves (\$909 million), grain-fed calves (\$114 million), veal calves (\$222.9 million), steer (\$313.6 million), oats (\$302.7 million), barley (\$418.1 million), wheat for animal consumption (\$67.5 million), wheat for human consumption (\$70.2 million), and grain corn (\$1.4 billion over 10 years).

In these types of production, it is evident that farmers are not insured against price fluctuation risk. They contribute to an income security plan and receive compensation each year that is significantly higher than their own contribution. It would be fairer to call it a subsidy in these cases. In 2006, feeder calf producers contributed \$45.3 million and received compensation totaling \$137.5 million. Lamb producers paid \$7.1 million and received \$19.3 million the same year. The Desjardins Group issued a fitting reminder that "stabilization insurance programs were designed to provide compensation in slow years on an ad hoc basis, and this principle must be preserved. If compensation is paid each year, it is not stabilization per se, but rather a support program."

The program has a big tendency to mask market signals. In any other insurance plan, the above-mentioned situations would have prompted farmers to reduce their costs and gradually shift production. Between 1986 and 2006, grain corn production dropped 9% in Ontario (which is normal because this form of production was in deficit), but rose 85% in Québec under the same market conditions. During the same period, lamb production grew 42% in Ontario and 183% in Québec. Cow-calf production rose 19% in Ontario and 68% in Québec. In short, underperformance does not seem to affect production levels in Québec if FISl coverage is available. Ontario farmers, who do not benefit from such a plan, demonstrate more responsiveness to changing prices.

2. Production costs

In 1975, a new concept was introduced in Québec: production costs were calculated at a level that accorded farmers 90% of the income of a semiskilled worker. *Stabilized income* was established for all types of production based on a survey that averaged the costs of businesses specializing in each area.

We know that production cost surveys are complex and expensive. That is why they are only conducted at intervals of 5 to 15 years. For example, a survey on grain-fed calf production costs dating back to 1990 was updated in 2005, the results of which were not applied until 2007.

This production cost estimation method in the FISl plan contains major flaws, however. Production costs are indexed between two surveys, but yields remain fixed. Consultant Jean-Pierre Lachapelle examined this issue at the request of the Commission. His study revealed that between 2003 and 2005, actual grain corn yields in Montérégie according to the crop insurance program totaled 8,685, 9,001, and 9,000 kg/hectare for 2003, 2004, and 2005 respectively. According to the FISl production cost application method, yields remained fixed at 7,200 kg/hectare

throughout the entire period. Mr. Lachapelle determined that if this region's actual yields had been used, FISl would have paid \$128 million less to Montérégie grain corn farmers. It is important to note that even with these savings, farmers would have received compensation covering the difference between market income and their own production costs.

The same imbalance applies to piglet production. During the period from 1983 to 2003, the yields used in the Québec farm income stabilization insurance model were only revised twice. If production had been adjusted per sow for each year between 1997 and 2003, FISl would have saved \$161 million.

These deficiencies must be corrected. These overpayments are draining away financial resources beyond the requirements of farm income stabilization, while other glaring farming needs are not being met.

3. A program that serves to heighten environmental problems

A number of authors³² have drawn a link between FISl and such things as increased re-course to crop intensification and reduced crop rotation, which contribute to the degradation of the environment and soil and water quality. In a way, stabilization insurance guides the choices of farmers, who are strongly motivated to stick with "stabilized" types of production where two-thirds of risks are assumed by the government. Farmers tend to seek greater specialization, which often runs counter to less environmentally damaging practices.

The Canada Research Chair in Environmental Education maintains that a program like FISl, "interferes with the adoption of more environmentally friendly growing or livestock production practices and limits growing and livestock choices."

32. BOUTIN, 2004; NOLET, 1998; DEBAILLEUL, 1998; DEBAILLEUL and MÉNARD, 1998; FOURNIER and HENNING, 1990; QUÉBEC AUDITOR GENERAL, 1996

4. A program that creates inequity between types of production

One of the main shortfalls of FISl lies in the fact that the plan only benefits 17 eligible types of production: milk-fed lamb, heavy lamb, feeder calves, grain-fed calves, veal calves, steer, pigs, and piglets in livestock production and oats, barley, wheat for animal consumption, wheat for human consumption, grain corn, soy, canola, potatoes, and apples in crop production.

Many other farmer groups insist they too should be eligible for the plan. They can see the major benefits FISl confers on other farmers and they claim the program must, in all fairness, also be available to them. The following proposal, formulated by the representative of the Chevrotière local UPA union, is very typical of many received: "We would therefore like all types of agricultural production to be covered by the current insurance regimes and an automatic indexation mechanism based on multiple indices (inflation, CPI, etc.) to be introduced into production cost calculations."

Table 6, which presents the compensation received by farmers over the past 10 years, reveals the obvious inequity between the way insured and uninsured types of production are treated. It should also be noted that farms eligible for FISl also qualify for the other programs offered by the two levels of government.

As shown, four types of production (grain corn, feeder calf, pig, and piglet) collected 64% of all assistance. Such disparity in treatment between types of production cannot go on. However, turning FISl into a universal program while keeping the plan's current parameters and management approach would pose a considerable financial risk for the government.

Table 7 presents the main types of production not covered by FISl. They make up \$850 million of total annual agricultural market revenue.

Table 7 | TYPES OF PRODUCTION NOT COVERED BY FISl AND AVERAGE ANNUAL MARKET REVENUE (2002–2006) (\$MILLION)

	Annual Revenue
Vegetables	293.0
Maple products	143.0
Ornamental crops	229.0
Christmas trees	48.4
Strawberries	20.5
Honey	5.8
Other fruits	53.5
Fur-bearing animals	2.8
Dry beans	8.5
Various livestock	27.0
Hay and fodder	12.6
Various crops	4.2

Source: LACHAPELLE, Jean-Pierre, based on MAPAQ, *Recettes monétaires agricoles du Québec 1996-2006*, special compilation from STATISTICS CANADA

Table 6 | FISl COMPENSATION PER TYPE OF PRODUCTION (1997–2006) (\$MILLION)

Livestock Production	Amount	Plant Production	Amount
Lamb	158.1	Oats	302.8
Feeder calves	909.7	Barley	418.1
Steer	313.6	Wheat (animals)	67.5
Pigs	663.6	Wheat (human)	70.2
Piglets	618.0	Grain corn	1,435.3
Grain-fed calves	114.1	Soy	109.9
Veal calves	222.9	Canola	15.1
		Potatoes	38.3
		Apples	46.8
Total	3,000.0		2,504.0

Source: LACHAPELLE, Jean-Pierre, *Rapport sur les assurances agricoles du Québec*, presented to Commission sur l'avenir de l'agriculture et de l'agroalimentaire québécois, 2007, Table 85

Producers of vegetables, maple syrup, fruits, and ornamental crops are part of an important and dynamic agricultural community highly exposed to risks in terms of income stabilization. It is totally unfair not to make them eligible for Québec's largest agricultural support program. The same goes for lower volume and emerging types of production, which are left to fend very much for themselves.

5. A plan that does not encourage farmers to improve

It would be totally unreasonable to say that with a regime like FISl, farmers show no concern for profitability. However, because the program compensates income loss, and the lion's share of the bill is assumed by the government, there is less motivation to deal aggressively with financial viability problems. The Purdel cooperative maintained that "the Québec government could continue to intervene via its stabilization insurance programs, but require farms to show compliance with a continuous improvement program to qualify. This would speed the introduction of methods that lead to greater efficiency." Syndicat des producteurs ovins du Bas-Saint-Laurent suggests that "the FISl model take into account business efficiency instead of size."

FISl could foster greater productivity if production costs were based on a model that excluded less efficient businesses. All businesses would be incented to improve rather than remain in a sort of comfort zone determined by the combined yields of all businesses—including the poorest ones. Rather than deliberately placing the bar too low by counting the production costs of inefficient farms, the plan would become a little more demanding. It should be pointed out that a model using data from the most successful farms would include facilities of all sizes. Complementary measures could also be designed for less efficient operations. In this regard, the farm cooperative Comax recognizes that "the focus must be put on improving efficiency in [production] sectors," while proposing that income stabilization programs be maintained.

MAPAQ has estimated that if compensation had been established by determining an average of the 75% most successful farm operations, pig and piglet farmers would have received \$36.6 million and \$51.8 million less in 2002–2003.

An even more important statistic concerns businesses that benefit from economies of scale or other particularly favorable conditions. In 2003, for example, the 101 largest pig farmers received \$16.58 per pork product in compensation from FISl, or an average of \$558,221 per business. If the data from the most successful companies had been used to calculate production costs, compensation would have been \$6.72 less per pig, which would have resulted in an average \$331,966 in compensation per large business. Each one therefore received an amount that exceeded its income stabilization needs by at least \$200,000—assuming they were among the most productive businesses, which is usually the case for big pig farms. In other words, these large businesses simply took advantage of the low productivity of less successful businesses and obtained more aid than necessary.

According to the estimates made on behalf of the Commission for other types of production, compensation calculated on the basis of the 75% most successful businesses would reduce stabilized income by an average 4%, for an additional total annual savings of \$68 million. Revising the data used to calculate production costs would therefore generate savings in the order of \$150 million while in no way jeopardizing farmer access to essential income stabilization support. By adopting performance measures, we could—with the over \$150 million saved—reduce the financial instability of the FISl program and help farmers who really need it.

6. High percentage of compensation paid to large businesses

Table 8 presents, for certain types of production eligible for FISI, data that illustrates to what extent large businesses benefit from the plan and drain off a significant part of its resources. For example, 8% of all steer farmers received 62.7% of compensation awarded for this type of production in 2005, for an average total of \$441,489 per large farm.

Faculty of Agriculture and Food Sciences students at Université Laval suggest, "that a sliding scale model based on business experience (no. of years) and size could serve as the basic principle for gradually reducing the FISI budget."

7. Unequal benefit distribution among regions

FISI assistance is uniformly paid per production unit throughout Québec, irrespective of environment biophysical characteristics. We can reasonably assume that some of these characteristics vary from one region to the next and affect production costs. By making certain types of production eligible for FISI and excluding others, certain regions are indirectly targeted, because types of production are not evenly distributed throughout the province.

The local Charlevoix UPA union expressed an attitude echoed in many regions at the Commission hearings: "In Charlevoix, all farmers have long agreed that the blanket agricultural policy is no longer justified. What is good for central regions is not necessarily good for peripheral regions."

Even more of a concern is the concentration of compensation in certain Québec agricultural regions. In 2006, three regions (Montérégie, Chaudière-Appalaches, and Centre-du-Québec) received 64% of FISI compensation. This is not surprising, because FISI awards compensation based on the type and volume of production. Setting program quotas by administrative region is not feasible, but these discrepancies bear thought.

Table 8

BREAKDOWN OF COMPENSATION BY FISI TO THE LARGEST BUSINESSES (REFERENCE YEAR: 2005, EXCEPT FOR PIGS [2003])

Production Sector	% or No. of Large Farms	% of Compensation Paid to Large Farms	Average Compensation Per Large Farm (\$)
Feeder calves	2%	13%	181,135
Steer	8%	62.7%	441,489
Pigs	7%	46.1%	558,221
Piglets	12%	45.1%	107,080
Grain-fed calves	23 businesses	54.1%	297,682
Veal calves	41 businesses	31.2%	309,900
Grains	0.7%	7.49%	362,544

Source: LA FINANCIÈRE AGRICOLE DU QUÉBEC, adaptation by Jean-Pierre LACHAPELLE, 2007

Table 9**LA FINANCIÈRE AGRICOLE DU QUÉBEC (A FEW FINANCIAL PARAMETERS)
(2004–2005 TO 2007–2008) (\$M)**

		2004-2005	2005-2006	2006-2007	2007-2008
Operating surplus or deficit of La Financière agricole	Annual	8.0	(54)	(138)	(255)
	Cumulative	108.8	55	(87)	(342)
FISI funds as at March 31		(314)	(372)	(597)	(606)
Loan regime		311	383	729	922
Compensation to farmers		255	497	688	782

Data for 2007–2008 is projected. Figures in parentheses are deficits.

Source: LA FINANCIÈRE AGRICOLE DU QUÉBEC, adapted by Jean-Pierre LACHAPPELLE, 2007

8. Cost explosion

Like any insurance plan, FISI must maintain a balance of funds. A one-time event may cause a short term deficit, but plan administrators see to quickly reestablishing balance. As Table 9 shows, the situation of La Financière agricole du Québec is of utmost concern.

Total compensation rose from \$255 million to \$782 million in four years. The actuarial deficit of insured funds now sits at \$606 million. The cumulative deficit of the public corporation's operations is \$342 million.

Admittedly, pig farmers were hit hard by the mad cow crisis in 2003 and the circovirus crisis in 2005. The appreciation of the Canadian dollar has also affected farmer income.

The problem, however, is not solely due to chance economic factors. MAPAQ compared support awarded to Québec farmers under FISI to the aid offered to Ontario farmers in the same types of production³³. The ministry concluded that 69.5% of assistance offered to Québec steer producers between 2000 and 2004 was structural; in other words, it was not tied to a passing crisis. The percent of structural assistance was 47.6% for pigs, 55.8% for piglets, and 72.8% for grain-fed calves and feeder calves. In short, this is no longer an insurance plan, but a farm income support program.

As Table 10 shows, the Québec government's share in farm income stabilization insurance has increased considerably in recent years.

Table 10**QUÉBEC GOVERNMENT'S SHARE IN FISI PREMIUMS³⁴ (\$M)**

Source: LA FINANCIÈRE AGRICOLE DU QUÉBEC, adapted by Jean-Pierre LACHAPPELLE, 2007

33. MAPAQ, *Proportion des revenus provenant du marché et proportion des compensations servant à stabiliser, faire du soutien concurrentiel ou structurel*, Direction des politiques sur la gestion des risques, July 2007

34. The Québec government's contribution to La Financière agricole du Québec, representing two-thirds of the compensation paid

It would be extremely optimistic to hope that these deficits could be absorbed in the near future. While UPA maintains that the effects of current conditions have been “delayed thanks to effective management of the FISl program [...] it has requested an additional \$268 million from the ministry to cover these completely out-of-the-ordinary FISl expenses.”

The Commission acknowledges that farmers have built their businesses and financing plans around current regimes and the long term expectation of guaranteed prices. Any significant changes to these programs must therefore include a major transition phase to allow farmers, where required, to adapt to new contexts without undergoing excessive financial strain.

REFORM OF AGRICULTURAL FINANCIAL SUPPORT

1. Greater effectiveness and fairness

The Commission readily admits that government assistance is essential to maintaining and developing agriculture in Québec. It in no way proposes reducing the current level of financial assistance for agricultural production. The Commission agrees with the goals of farm income stabilization and insurance against risks inherent to farming. It also notes that in a number of fields, Québec agricultural is structurally less competitive, given the climate, working conditions, employee benefit plans, and environmental regulations in effect.

The Commission notes, however, that the design and management of current farm assistance programs is leading to a crisis that may harm the entire agricultural and agrifood sector. The Commission deems it urgent to correct irregularities in the FISl plan to realign it with its original, fundamental objectives. The proposals formulated here aim to offer all farmers assistance that reflects their desire to work toward viable agriculture, takes our special characteristics into account, and offers economic conditions comparable to those of other entrepreneurs. In short, they seek to offer both greater fairness and efficiency.

The following parameters guided the Commission in formulating its proposals on updating farm assistance programs:

- A federal financial contribution as considerable and extensive as possible in terms of income stabilization and disaster relief intervention
- Supplementary financial aid from the Québec government that takes into account the northern characteristics of our agriculture and the desire to pay special attention to environmental protection
- Financial assistance eligibility for all types of production
- Adaptable measures to take into account regional characteristics and certain environmental needs
- Support for farmers as entrepreneurs
- Measures in line with sustainable development

2. Four-part reform

The proposed reform to government financial support for agricultural production has four parts:

1. Systematic recourse to the new version of the Canadian Agricultural Income Stabilization Program (CAISP)
2. Tighter management of the Farm Income Stabilization Insurance (FISI) Program and its conversion into a farm business support program over a period of five to ten years
3. Immediate implementation of a new farm business support program for types of production not covered by FISI
4. Setup of a transition assistance program for farmers interested in revisiting or switching production methods

3. Federal assistance: first level of protection

The federal government has concluded an agreement with the provincial and territorial governments to redesign CAISP, which will be replaced by two main programs called AgriInvest and AgriStability.

The AgriInvest program will offer coverage against slight drops in income, allowing farmers to set aside part of their income when economic conditions are favorable so that they can collect compensation when market conditions or yields are poor. Farmers will contribute 1.5% of their adjusted net sales to the fund, which will be matched by the federal government. Like the current CAISP, the AgriStability program will basically cover part of the difference between the year's gross margin and the reference margin, which will not be covered by AgriInvest.

The federal government has not yet reached agreement with the provincial and territorial governments regarding disaster intervention. This component of government assistance is vital. Unusual circumstances beyond the normal range of insurable risks can cause agricultural production and food processing to suffer very serious damage. This is what happened with mad cow disease. Farmers must be able to count on compensation equal to losses incurred in such circumstances. The federal government is unquestionably in the best position to provide this type of aid.

4. Stricter FISI eligibility rules

Pending the transformation of FISI into a program better adapted to the goals of sustainable agriculture, it is urgent that farm income stabilization insurance be realigned with its original objective of equitably stabilizing the income of farmers. Corrective measures should aim to prevent the overcompensation observed in certain types of production, which particularly benefits the largest agrifood businesses. It should be stressed that the savings resulting from tighter FISI eligibility and management criteria should be redirected in their entirety to aid for farmers. This change will make the Québec government's financial assistance for farmers much fairer and more effective.

In 2008, the government must renew its agreement with La Financière agricole du Québec. Under this agreement, the government has awarded La Financière \$305 million annually for the past seven years. Extending it without adjusting certain FISI parameters would be hard to justify. Three changes should be made:

- Both yields and production costs should be indexed each year. This would eliminate the bias that is created and worsens over time, as cost surveys are only conducted at intervals of 5 to 15 years. Production costs are adjusted each year, but not yields.
- Production costs should be based on the 75% most successful businesses. This is crucial because it eliminates numerous cases of overcompensation. Currently, the most successful businesses receive compensation that is obviously well above their actual income stabilization needs. This situation benefits mainly large piglet, grain-fed pig, grain corn, and feeder calf farms. This change to the calculation of production costs should be accompanied by a measure providing personalized management and agrienvironmental coaching to businesses with the highest production costs or lowest yields.
- A \$150,000 cap per year should be placed on FISI contributions and compensation. If this compensation limit per farm had been applied in recent years, we could have redistributed \$100 million annually to other farmers.

5. Conversion of FISI into a farm business support plan

All farm production support or price guarantee programs have demonstrated their limits. They prompt farmers to continue producing even when market conditions are clearly unfavorable. They lead to overproduction, encourage practices that often cause major environmental problems, and do not significantly improve farm revenue.

Almost all developed countries have revised programs of this type, mostly opting instead for measures designed to stabilize the overall revenue of farm businesses, irrespective of type of production. The European Union and Switzerland have been taking this tack for several years. The purpose of the new support programs is to improve the competitiveness of agriculture. They encourage the production of environmental goods and services and the attainment of social goals that go beyond the main productive role of agriculture.

The Commission's criticisms of the Farm Income Stabilization Insurance Program are in no way aimed at farmers themselves, as this program was set up by the government. Farmers take part in the program in good faith and have derived the benefits it clearly offers, adapting to the business environment it has created. As we have seen, this plan must now take a new approach.

The Commission suggests converting FISl into a farm business support plan to supplement the federal farm income support program. The amount allotted to this new program should correspond to the annual average budget the Québec government has accorded FISl over the past five years. It would have the following objectives:

- Award Québec farmers compensation for certain costs associated with the northern character of our agriculture and environmental and social constraints imposed on farmers but not readily recognized by markets
- Motivate farmers to adopt better growing or livestock production practices in terms of both respect for the environment and the economic viability of their businesses
- Allow farmers the freedom to choose the types of production they deem most appropriate for their situations

It is not the Commission's role to define detailed parameters for this new farm business support program. This is for the experts and managers who possess all the relevant data to do. The Commission's role is to provide a framework.

The farm business support program would take the form of a stable and foreseeable annual payment that would allow farmers to make long term production and investment plans. It would be funded entirely by the government, awarding annual financial assistance that would counter-balance the conditions unique to Québec farming. It would be

- Universal (all types of production would be eligible)
- Cross compliant, including a condition that farmers comply with environmental standards
- Managed by La Financière agricole du Québec

Financial assistance from the farm business support program could start with basic support of up to \$150,000 per farm per year, available to all farmers except those under supply management. This annual direct payment would be established on two bases:

- An initial amount equal to 10% of acknowledged net sales would apply to the first \$50,000 of sales.
- An additional amount based on the evolution of production at each farm would take into account criteria such as crop areas or the number of animals raised. This amount would be allocated on an annual basis for as long as the farmer continues to farm, regardless of the type of production and the quantity produced.

In addition to this direct payment, there could be another variable amount based on

- Biophysical characteristics and climate conditions that make farming more difficult in certain specific agricultural regions: More aid would be offered to farmers in areas where yields are poorer or production costs are higher.
- Practices over and above cross compliance with minimal impact on the biophysical environment (direct seeding, organic farming, and others): This variable amount would take the form of a lump sum payment per hectare cultivated as per these practices for a certain number of years.
- Production of specific environmental products that are compensated in proportion to income lost or investments made in relation to the production of these goods: Examples would include a buffer strip wider than the prescribed standard or the protection of a wooded area, source of drinking water, wetland, or area of specific ecological environmental interest.

What would be the benefits of converting FISI into a direct payment program for farm businesses? In short, the new program would

- Compensate farmers for the disadvantages of our northern climate
- Be much fairer for all Québec farmers because it would be universal
- Establish substantial support for aspiring farmers, because new agricultural producers could receive income support right from the start, regardless of business size, which is virtually impossible right now
- Take into account variable farming conditions in various regions, in fairness to farmers who are not located on Québec's best lands but are nevertheless willing to earning their living by farming
- Motivate farmers to improve their business efficiency, because additional earnings obtained through production cost reduction or yield increase would mean increased business benefits that would not affect payments received from the government
- Appeal to farmers' entrepreneurial spirit and call on their initiative and innovation
- Promote crop rotation and other optimal choices, because all types of production would be treated equally
- Give farmers the freedom to choose the type of crops and livestock they wish to raise, fostering diversity in Québec agriculture
- Appropriately compensate farmers for adopting the best environmental practices and producing environmental goods
- Supplement crop insurance and the federal price stabilization program as well as eventual disaster relief

SPECIAL TRANSITION ASSISTANCE

European Union countries and Switzerland have undertaken to modify farm support and price stabilization programs by introducing an annual direct payment for farmers. They are allowing themselves eight to twelve years to complete the transition.

Because farming is a medium and long term activity requiring major investment, sufficient transition periods must be provided when fundamental changes are made to certain production support measures. Offering farmers who would be most affected the concrete means to adapt to the new situation is also crucial. The Commission therefore considers it of utmost importance to set up a transition assistance program.

Once the government decides to go ahead with these changes and the new farm business support program has been finalized, farmers not covered by FISI could benefit from the new program. The Commission hopes this decision will be made as quickly as possible. Logically, in coming and transition years, any increases in insured units must be refused and new businesses must not be admitted to FISI, for two reasons. First, since FISI would be converting into a new direct payment plan for farm businesses, the transition process would have to be initiated as soon as possible. Second, people must be prevented from setting up distinct legal entities during the FISI tightening phase to indirectly obtain payments that would otherwise be capped.

During the transition phase, the government would have to gradually reduce the farmer contribution and compensation amounts. It could reach an agreement with farmer representatives when farmers covered by FISI also become eligible for the new farm business support program.

The government should also set up special transition assistance, which would apply mainly to farmers required to adapt to new contexts. We have seen that certain farmers have received considerable sums from the current income stabilization insurance plan year after year. These farmers would have to evaluate their new environments. If required, they should be offered assistance and financial support to help them adapt to the situation and continue farming.

Special transition assistance would be primarily for farmers seeking to change production methods or switch production. It would also be offered to agricultural cooperatives and farmer groups set up to share certain costs of production, on-farm processing, or marketing. Such initiatives can boost farm viability and must be encouraged. Under special circumstances, transition assistance could also go to regional organizations for projects aimed at ensuring regional farming viability.

This aid would cover farmers who wish to

- Reorganize their production to reduce costs or improve yields
- Convert to organic farming
- Set up a complementary processing operation at the farm
- Develop a niche product
- Introduce a complementary type of production to make the farm business viable
- Change to a different type of production
- Finance facilities with a realistic hope of turning a profit (a slaughterhouse, for example), to ensure the agricultural viability of a region

QUOTA PRICES AND MANAGEMENT

1. Supply management

Supply management was implemented in Canada in the early 1970s in five types of livestock production: dairy, turkey, chicken, table egg, and hatching egg. At the time this mode of supply regulation for targeted food products was introduced, the Canadian market periodically experienced agricultural surpluses, triggering market price declines. To ensure the survival of farm businesses, the federal government bought any surplus production, an increasingly costly proposition.

Supply management consists of adapting production levels to market needs. It is another way of stabilizing farm revenues while exercising a certain control over the market and, consequently, the prices of agricultural products.

Two basic conditions must be met to ensure true supply management. First and foremost, discipline must be instilled to prevent overproduction. This is why quotas were set across Canada, then divided up by province and assigned to individual farmers, who are subject to penalties if they do not comply with their production quotas. The other supply management instrument consists of customs tariffs on imported products. It would be pointless to control domestic production if product supply could be destabilized by imports. These tariffs are currently 299% for butter, 246% for cheese, 155% for whole turkey, 238% for whole chicken, 164% for table eggs, and 238% for hatching eggs.

For the vast majority of Commission hearing participants, supply management offers net benefits. The idea that production volume can be adjusted based on domestic demand for agricultural products is certainly logical and justifiable. We have observed, however, that such plans are being questioned by a large number of countries, mainly because of high tariffs imposed on imported products, which represent major trade barriers for exporting countries.

It is not up to the Commission to speculate whether the supply management system will survive. Governments have agreed to defend this system and are doing so. The Commission nevertheless believes that while defending this system, the agricultural and agrifood sector must also plan for the future and consider several options. Some have adopted an attitude of denial, believing that the mere fact of suggesting supply management could change could weaken their position and be interpreted as giving up the fight. But is such an attitude conducive to properly preparing for the future?

Whatever fate awaits supply management, it is to the entire sector's advantage to increase productivity, continue improving management, display innovation in production and processing, and differentiate products to be able to compete better. Québec farmers should be able to compete with producers from developed countries whose environmental and social costs compare to ours. At the Commission's hearings, the president of Fédération des producteurs du lait du Québec acknowledged that inquiries with the Canadian Dairy Commission showed "that we are not that far behind in terms of production costs" compared to other Canadian dairy farmers. He added, "Production costs are similar in Europe, which is not surprising because energy costs more over there and labor costs are high. We made inquiries in the United States, and production costs there are also similar except for farms with 2,000 to 5,000 heads of cattle, which can obviously achieve economies of scale."

Productivity initiatives that strengthen the agricultural and agrifood sector would help the industry react in the event tariffs were lowered. If the protection at the border guaranteed by supply management came under attack, any gains in productivity would make adapting to increased market competition a little less difficult. What do we have to lose by becoming better?

Whatever happens, increased productivity guarantees our ability to offer Quebecers quality products at the best prices.

At the Commission's hearings, the president of Desjardins Group invited agricultural and agrifood sector stakeholders and governments to look beyond their current defensive attitude:

There is no room for confrontation or concealment now in the face of the difficult changes we must make. To succeed, it is essential that experts develop alternative scenarios for reducing tariff barriers, opening up the domestic market and access to new markets to help establish a common vision of the magnitude of the challenge, and above all, preparing for the future today. These scenarios could be a basis for discussion. We must agree to explore many ideas, even those that are unpleasant and upsetting.

2. Quotas

In 1970, quotas were distributed free to farmers. They acknowledged their right to produce, so to speak. Later, farmers began to buy and sell quotas, which gained more and more in value. In 1981, their value was estimated at \$1.15 billion in Québec. By 2005, it was \$9.15 billion.

Quota prices are one of the heaviest legacies Québec agriculture must bear. Various researchers have shown that it is impossible for young farmers who buy quotas at market value to turn a profit with a supply-managed farm. Unless special intergenerational arrangements are made within the farming family, quota prices pose a very serious problem to young farmers subject to quotas. The market value of a medium sized dairy farm is estimated at about \$2.5 million, including nearly \$1.5 million for the quota.

The current value of quotas also creates enormous difficulties for existing businesses. When farmers succeed in increasing productivity, any extra production from which they could benefit cannot be delivered unless they acquire new quotas.

Quotas are seen as benefits for farmers. That said, considerable sums are withdrawn from agriculture when farmers sell their quotas, which also causes excessive indebtedness for the farmers who buy them and reduces the prospects of farm profitability. Because farms are hard to pass on to the next generation—especially when no family members show any interest—the dynamic of quotas strongly encourages the dismantling of farms.

Marcel Mazoyer, a professor and research director at Institut national agronomique de Paris-Grignon and defender of the Canadian supply management system, is highly critical of the direction farmers have taken with regard to quotas:

Yes, we must change the way dairy quotas are managed. They are a public right distributed fairly among farmers. It is unconscionable to interpret them as an ownership right. They are a production right one may choose to redistribute free of charge based on market needs. Turning them into a commodity handicaps production. It also turns the right to produce into a production cost. It adds the extra cost of an annuity paid to someone who no longer farms. This cost is then charged to someone who must produce while incurring it. It is a self-destructive mechanism that will one day be so expensive, it will no longer be possible to produce profitably, and no one will be able to buy it.³⁵

We cannot disregard this troubling reality. We must make a deliberate effort to reduce the value of quotas in the medium and long term. The very survival of Québec's basic types of farming depends on it. In other countries where such systems have been implemented, various incentive and enforcement measures have been adopted to prevent speculation. Quota transactions are strictly controlled. In Québec and the rest of Canada, there has been no intervention. It is imperative that quotas not be regarded as the exclusive property of farmers, but rather a collective good made available to them to promote agricultural development.

For the sake of Québec's agricultural sustainability, it is important that concrete actions be taken with regard to quotas. We simply cannot impose such a burden on the next generation and those who decide to increase their production level.

35. Quoted from *Le Coopérateur agricole*, October 2007 (our translation)

For example, dairy quota transactions in Québec between 2001 and 2006 totaled \$1.52 billion. This means that buyers had to invest—often through loans—without adding anything to the value of Québec farm production.

Farmers themselves are aware of the problems of quota prices. In November 2006, Fédération des producteurs de lait du Québec decided to retain 30% of all quotas sold within five years of their original acquisition. The quantities thus collected are redistributed among all farmers to reduce the financial pressure of the cost of quotas. Dairy farmers have also agreed to a maximum price per quota unit sold of \$30,000. This should be good news for egg and poultry farmers, who say they are having trouble attracting young farmers because of the constraints of supply management.

In its brief to the Commission, Fédération des producteurs d'œufs de consommation du Québec explained its decision regarding quotas in these terms: "Farmers have set up the Startup Assistance Program for new farmers. Each year, this eagerly awaited program will accord a new farmer a quota of 5,000 laying hens under certain conditions, from a quota reserve set aside for this purpose. The program was a resounding success its first year, allowing Joanne LaBranche and Patrick Côté (a young couple from Kinnear's Mills near Thetford Mines) to get started in egg production. The program will run again in 2007 and for years to come, because farmers will continue to add to the quota bank from future quota increases."

Les Éleveurs de volaille du Québec expressed their concerns regarding quotas and young farmers in a brief to the Commission: "Québec poultry farmers set up an enlarged committee on quota values and young farmers. This committee was given clear responsibilities to take a serious, concrete look at these fundamental issues. A young farmers program has been in place since 1993, and Les Éleveurs has recently been working on developing two special programs to be presented in fall 2007, to provide even greater access for future poultry farmers." Obviously, much more progress remains to be made.

Once quotas were implemented in the early 1970s, governments played no role in the rules or mechanisms regarding transfer, sale, or the determination of prices. Farmers managed these issues themselves. In actual fact, systems differ from one sector to another and from one province to the next.

Because the quota problem goes to the heart of issues concerning young farmers, it is primarily up to farmers to make an immediate commitment to gradually lowering the value of quotas. Dairy farmers have already taken steps in this regard. No vision of the future is possible if the value of quotas continues to rise or if we underestimate the seriousness of the problem that quota prices pose with regard to farming sustainability.

Recommendations

Consequently, Commission sur l'avenir de l'agriculture et de l'agroalimentaire québécois recommends

- 1.** That the Québec government devote the same annual amount to farmer support measures as it has averaged over the past five years
- 2.** That the Québec government reach an agreement with the federal government so that Québec farmers have access to an improved farm income stabilization program and to appropriate support in the event of natural disasters
- 3.** That Québec's Farm Income Stabilization Insurance (FISI) program gradually evolve into a universal support program for farm businesses to help counterbalance production costs due to the northern character of Québec agriculture and certain environmental and social constraints implicitly imposed on farmers but not readily recognized by markets
- 4.** That the government make immediate changes to Farm Income Stabilization Insurance as part of a reevaluation of its agreement with La Financière agricole du Québec to ensure fairer treatment for all participating farmers and avoid any type of overcompensation, and that such reevaluation touch on the following:
 - Yearly indexation of production costs and yields in calculating stabilized income
 - Setting of production costs based on the average of the 75% most successful farm businesses
 - Capping of program contribution and compensation levels to ensure compensation does not exceed \$150,000 per farm per year, or a decreasing amount starting from a threshold in the order of \$150,000
- 5.** That the farm business support program that would gradually replace FISI be developed and implemented as quickly as possible for types of production not eligible for FISI and not covered by supply management and that it be
 - Universal (all types of production would be eligible)
 - Cross compliant
 - Managed by La Financière agricole du Québec

Recommendations

- 6.** That the farm business support program's financial assistance consist of
- Basic support offered to all farmers, except those who operate under supply management, up to \$150,000 per farm per year, through a direct annual payment calculated on two bases:
 - An initial amount equal to 10% of recognized net sales and applicable to the first \$50,000 in sales
 - An additional amount based on the evolution of production at each farm and criteria such as crop production area or the number of animals raised, allocated on an annual basis for as long as the farmer continues to farm, regardless of the type of production and the quantity produced
 - In addition to this direct payment, there could be another variable amount based on
 - Biophysical characteristics and climate conditions that make farming more difficult in certain specific agricultural regions
 - Practices over and above cross compliance with minimal impact on the biophysical environment (direct seeding, organic farming, and others), variably compensated in the form of a lump sum payment for a certain number of years per hectare cultivated as per these practices
 - Production of specific environmental products that are compensated in proportion to income lost or investments made in relation to the production of these goods, e.g., a buffer strip wider than the prescribed standard or protection of a wooded area, source of drinking water, wetland, or area of specific ecological interest
- 7.** That the government introduce transition assistance in conjunction with and to supplement the farm business support program, primarily to help farmers or farmer groups seeking to revisit or switch production methods and who therefore
- Reorganize their production to reduce production costs or improve yields
 - Convert to organic farming
 - Set up a complementary processing operation at the farm
 - Develop a niche product
 - Introduce a complementary type of production
 - Change to a different type of production
 - Finance facilities needed to ensure the agricultural viability of a region (a slaughterhouse, for example)

Recommendations

- 8.** That the transition assistance take the following forms:
 - A grant covering 75% of the costs of developing a business plan for the transition project
 - Reimbursement of 75% of expenses, including the cost of having the farmer replaced by a farm employee during training activities related to the transition project
 - Reimbursement, for a period of at least two years, of 75% of the costs associated with management, production, processing, or agroenvironmental advisory services
 - A direct grant of 5% of the investment required, as per the business plan, to meet the transition project objectives
 - Financing from La Financière agricole du Québec for the required investment and no interest for the first three years
 - Investment in a cooperatively managed regional facility
- 9.** That the Québec government strongly encourage farmers who operate under supply management to act quickly, notably by
 - Limiting and lowering the cost of quotas
 - Retaining portions of quotas bought and sold and adopting other measures to establish a bank of quotas intended primarily for young farmers, according to conditions that facilitate their use in these types of production
- 10.** That MAPAQ, in its next agricultural policy, put forward a strategy aimed at improving productivity in each of the production subsector under supply management
- 11.** That MAPAQ recognize ornamental horticulture as a full fledged component of the agricultural and agrifood sector and provide it the same access to technical and financial assistance measures as other fields
- 12.** That MAPAQ, in conjunction with the other ministries involved in the action plan for healthy eating, develop a production and marketing development strategy for greenhouse vegetables
- 13.** That the government adopt an organic farming support strategy to meet the demands of Quebec consumers to replace imported organic produce with organic produce grown in Québec, and promote the export of certain Québec organic products to foreign markets

Marketing of Farm Products



5

In follow-up to the Héon Commission report published in 1955, the Québec government adopted the *Act respecting the marketing of agricultural, food and fish products* the next year. The goal of this law was to offer products for sale in the market in an orderly way, for the clearly expressed purpose of increasing the revenue of farmers. The Act was based on the premise that by banding together in groups, farmers could right the balance of power and thus have more negotiating clout with buyers, which should normally lead to higher prices for their products. In Québec, this system is informally called “collective marketing.”

The 1956 act was amended several times, including in 1963 and 1974, and then again in 1990 when it became known as the *Act respecting the marketing of agricultural, food and fish products*. Its goal and the procedures it sets out have remained the same. The Act’s scope has notably been extended to the sea fishery sector and private woodlot owners.

The Act defines the notion of marketing very broadly. Marketing encompasses “the classification, processing, storage, offering for sale, shipping for sale purposes, transport, penning, sale, purchase, advertising, and financing of operations relating to the selling of the product and services by bees in respect of agricultural products³⁶.”

The Act establishes a body to collectively negotiate marketing conditions for a given product. Called a marketing board, it administers a joint plan that takes effect as soon as a majority of farmers vote to set up a collective marketing board via referendum. Made up exclusively of farmers, marketing boards are administered by a labor organization or a federation of labor organizations. Legally speaking, the marketing board is the negotiating agent and sales agent of all products set out in the joint plan³⁷.

The Act authorizes cooperatives to administer joint plans³⁸, but in practice only labor organizations and farm federations do so. The board is usually the only body that sells and markets the products. When this is the case, all farm products covered by a joint plan, with a few exceptions³⁹, must be sold through the marketing board. All farmers covered by a joint plan are subject to it. In practice, boards are a monopoly, a legally sanctioned cartel.

Although there are three joint plans in the sea fishery sector, agriculture has 17, covering dairy, pork, beef, poultry, table eggs, incubation eggs, sheep (lamb and mutton), goat, rabbit, grains, apples, potatoes, vegetables for processing, tobacco, the Saguenay/Lac-Saint-Jean blueberry, and private forest wood. An estimated 85% of Québec’s agricultural revenue is derived from the sale of collectively marketed products.

36. Section 3 of the *Act respecting the marketing of agricultural, food and fish products*

37. Section 65 of the *Act respecting the marketing of agricultural, food and fish products*

38. Section 50 of the *Act respecting the marketing of agricultural, food and fish products*

39. Such as direct sales transacted at farms

Some types of agricultural production are not covered by the collective system. Examples include market garden crops, greenhouse-grown crops, small cranberries, ornamental plants, honey, and berries.

Quebecers tend to think that Québec is where the concept of joint farm product marketing plans was first developed. Actually, on the world stage, the New Zealand government was the first to adopt a law creating joint marketing bodies, in 1921. In Canada, British Columbia was the first to pass a similar law, in 1927. New Brunswick followed in 1934, Manitoba in 1939, Saskatchewan and Ontario in 1945, Nova Scotia in 1946, and Alberta in 1955, one year before Québec.

Note that Australia (1926), Great Britain (1931), the United States (1937), and Holland (1950) had also passed legislation to make it easier for farmers to band together to market their products. In some countries, notably Australia and New Zealand, the legislative framework governing the marketing of farm products has been repealed or amended in the last few years. In Canada's other provinces, laws respecting marketing boards have not been amended, but some boards have opted to use only a few of their authorized powers (some boards focusing solely on promotion, market development, and related activities).

Québec farmers grouped in marketing boards negotiate with buyers regarding the terms of sale of their products. Their negotiations often result in marketing agreements, or contracts specifying the terms and conditions for producing and selling the products and also setting prices.

The Act makes it possible to regulate all steps in the production and sale of the product and to divide up among buyers all proceeds from sales as well as product overhead and distribution costs. This authority to regulate, which normally rests with the government, is mostly delegated to the marketing board, that is, to a farm labor organization.

As is usually the case when governments sanction or recognize monopolies, a public agency, in this case Régie des marchés agricoles et alimentaires du Québec (RMAAQ), acts as the monitoring and arbitration body for enforcement of the Act and its regulations.

MAJOR CHANGES IN MARKETING SINCE 1950

Two facts in the 1950s particularly worried the agricultural world:

- A high proportion of farmers lived in poverty.
- Buyers of farm products were accused of manipulating and dividing farmers, forcing prices down.

Much has changed in the last 50 years, both in agriculture and Québec society. Four basic changes affecting the marketing of farm products have gradually transformed the situation that existed when the first farm products marketing act was adopted in 1956.

Diversification. By the late 1950s, farmers produced a small number of agricultural products and strove to maximize the volume of a single product. A dominant concern at the time, to give just one example, was growing enough potatoes to feed the population, not producing 18 different varieties. Buyers, regardless of their source, bought the same commodities. The typical grocery store of the 1950s was run by an independent merchant and sold 2,000 different items to relatively captive consumers. In comparison, supermarkets today offer more than 25,000 food and other products to much more mobile customers, whose habits are inclined to change.

The consumer as king. This is the great consumer revolution. Consumers have expectations and values, which they translate into buying decisions. Products that fail to meet their requirements are simply ignored or replaced by others. Demand for food products is no longer guided, as it was in the fifties, by what local farmers can supply. Consumers have access to products from all over the world. They can impose their will and do so without hesitation: consumers dictate demand. The various links in the agrifood chain have no choice but to adapt. To survive and grow, farmers must pay close attention to market signals. This has caused an explosion in product diversity and the need to constantly reinvent products and foods.

Open markets. Despite supply management strategies and other measures to protect or develop Québec's domestic market, the stubborn fact is that farm products, like other goods and services, come to us from everywhere. And Québec products must compete in their own market, in one way or another, with imports, both in terms of price and quality.

The situation of buyers. Now as in the fifties, a high proportion of agricultural production passes through the hands of processors before reaching markets. But the companies that compete with Québec processors are often located outside the province. Some enjoy advantages, such as climate, production conditions, low wages, and lower environmental and crop health standards, and work within highly integrated systems or tight-knit networks. These competitors are often in a position to respond rapidly to changing consumer demand. In Québec, producers and processors work together, but each seeks to deal from a position of strength, which frequently leads to tensions that complicate the decision-making process. And yet concerted action in each food production system is actually what we need the most.

BENEFITS OF COLLECTIVE MARKETING

Most observers and participants at the Commission hearings noted that collective marketing had greatly benefited farmers and that it continued to offer them advantages. Farmers profited from their group status, and the resulting increase in negotiating power did, in their view, actually improve the economic status of producers. Granted, there are still problems with agricultural revenue, but the overall situation is in no way comparable to the late 1950s. Although collective marketing cannot take full credit for the improvement, there is no question it helped.

The organization of farmers into groups also fostered discipline with respect to farm product quality, hygiene, and safety. To sell products, farmers had to meet high standards, and they imposed that discipline on themselves. Through the standardization they established, marketing boards accentuated a trend toward specialization in mass farm production.

The collective marketing system also makes it possible to pool resources and divide costs among all producers. A good example are the dues levied in support of research for some types of production, such as dairy. The same is true, again in the case of dairy, for shipping costs, which are split among farmers so that a single charge is applied, regardless of the distance between the production site and the processing plant. Farmers consider this advantageous for those in outlying regions and they are very proud of their equalization system.

What's more, the monopoly granted marketing boards has enabled farmer labor organizations and federations to wield considerable influence over agricultural production and food processing. It has also given them substantial political clout.

In its brief to the Commission, Union des producteurs agricoles summed up the evolution of farmers' involvement in the collective marketing system this way:

Although the goal in the fifties was to restore the balance of power and improve marketing channels from farm to factory, over time farmers were able to hone the expertise that is and always will be needed to better organize collective marketing [...] Trying to earn a fair income in the market sometimes requires getting more involved in commercial channels, beyond the plant level. That is why some producers, such as cattle farmers, branched out into processing to be closer to distribution, and other groups like to sign agreements directly with distributors.

SCOPE OF MARKETING BOARD POWERS

Originally collective marketing was mostly aimed at organizing farmers into a group, to bolster their negotiating power and secure better prices. That is still its primary function.

Little by little, however, the National Assembly granted additional powers to marketing boards, powers made all the broader by the fact that boards could set rules, that is, impose conditions on all farmers and certain other stakeholders. Farmer organizations also gradually realized the extent of their potential powers and exercised them. The representative of Fédération des producteurs de bovins du Québec, by way of illustrating a joint plan's scope, testified to the Commission that "their reach is limited only by the individual imagination."

The *Act respecting the marketing of agricultural, food and fish products* contains 21 paragraphs listing the regulatory powers granted to marketing boards. Admittedly, regulations must be approved by RMAAQ, but the initiative left to marketing boards and the power they derive from their status as the only seller of a product creates a situation without equivalent in our legal system.

We need to realize the meaning of regulatory power. Regulations are unilateral decision-making tools with the same weight as an act of Parliament. Individuals bound by a regulation must comply on pain of legal action. It is an instrument used sparingly because it places restrictions on others. Regulatory power must be based on a broad notion of the common good. Public interest is what guides the impositive of legislative standards, i.e., obligations or restrictions on a group of people.

In government, regulatory power is controlled and offset to some degree by checks and balances. Depending on the prescribed procedure, draft regulations are

- Studied by ministerial committees to review the regulation's effects or possible consequences on the activities or constituencies of other ministries and sectors
- The subject of a complete impact study if their potential total impact on all enterprises will be more than \$10 million
- Examined by the ministers, who are also incumbent members and elected officials and who represent in that capacity the people, that is, the citizens who will ultimately be affected by the proposed regulation
- "Published," except in emergency cases, in Québec's *Gazette officielle*, that is, subject to open consultation for a three-month period, during which interested individuals and firms may forward their comments or objections to the government
- Brought back to Cabinet again by the minister responsible, before a regulation is adopted, to report comments gathered during the consultation.

This process prevents neither errors nor ill-considered decisions, but it does set out guidelines for the exercise of regulatory power. The exercise of regulatory power by a marketing board clearly involves fewer such “watchdog” mechanisms or counterweights, even though the regulations are approved by RMAAQ. Once a joint plan is approved, RMAAQ is not always required to consult the farmers affected by a proposed regulation. The Act stipulates only that RMAAQ may verify farmers’ opinions on the regulation in any manner it deems appropriate⁴⁰. It does not require impact studies. However, RMAAQ publishes all regulations it approves in *Québec’s Gazette officielle*. It is important to stress that this regulatory authority granted to marketing boards is exercised by a labor organization whose primary and legitimate objective is defending and promoting the interests of its members.

Besides negotiating the best price for a farm product, agricultural labor organizations administering a joint plan also have the power to “direct distribution of the product,” that is, distribute it among different buyers. Although product allocation is generally governed by agreements between parties, the marketing board’s prerogatives usually take precedence over the ties that bind farmers to a company or cooperative. For example, barring exceptions, a cooperative may not reach an agreement with its own members to purchase a raw material, even if it is willing to pay the agreed price negotiated with all farmers. Farm products under joint plans that have mandatory sales agencies must be sold to that agency, i.e., the marketing board, which then resells them, so to speak, to the cooperative and other buyers.

Marketing boards also have the authority to prescribe product characteristics. Section 92 of the *Act respecting the marketing of agricultural, food and fish products* gives them the power to write a regulation that prescribes “conditions governing the production, storage, preparation [...] of the product marketed [...], standards respecting the quality, form and composition [...].” The Act therefore delegates to a labor organization of producers the task of defining the type of farm products that will be sold.

In such situations, marketing boards, as the ones that receive all production and acts as sole “sellers,” naturally tend to standardize, to make products uniform. Though differentiation is possible, it complicates the system and is not really encouraged. Of course, boards must negotiate product prices and distribution methods with buyers and as a result indirectly feel consumer pressure for differentiated products. However, the act gives farmers such a strong bargaining position to “determine” products that they can put up resistance when processing companies and other buyers try to impose their perception of consumer demands for specific products. The marketing of organic milk by the dairy marketing board is now widely hailed, but organic pioneers had to work relentlessly for years to make it possible.

The Act respecting the marketing of agricultural, food and fish products also gives the selling agency responsibility for product packaging and advertising. These prerogatives are surprising at first glance. Once the product is sold and paid for at the agreed price, what do farmers really gain by expanding their marketing involvement to prescribing, via regulation, *the container, packaging, and information to be printed on the product or its packaging?* Wouldn’t it be better to outsource the packaging and presentation strategies of farm products to individuals and organizations who specialize in the field?

Lastly, given the powers granted to marketing boards, especially the exclusive right to sell farm products, the law does not allow boards to buy, process, or distribute food products themselves. Section 60 of the Act stipulates that a board may not trade or process the product covered by the plan it is implementing. However, RMAAQ can lift the prohibition if it deems it necessary in order to facilitate the orderly, efficient marketing of the product in question, in the general interest of farmers or fishers, as the case may be, as long as it does not cause serious prejudice to other stakeholders⁴¹. RMAAQ’s interpretation of this legislative provision enabled *Fédération des producteurs de bovins du Québec* to acquire a slaughterhouse.

40. Section 101 of the *Act respecting the marketing of agricultural, food and fish products*

41. Section 37 of the *Act respecting the marketing of agricultural, food and fish products*

RMAAQ'S ROLE IN QUÉBEC'S AGRICULTURAL AND FOOD MARKETS

To ensure the proper functioning of the marketing system and joint plans, the government created RMAAQ, or Régie des marchés agricoles et alimentaires du Québec, pursuant to the Act. RMAAQ has three missions⁴²:

- To promote the efficient, orderly marketing of farm and food products, that is, to supervise the entire collective marketing system (that is why RMAAQ approves joint plans)
- To foster harmonious relations between the various stakeholders
- To resolve differences that can arise during negotiations, that is, act as an arbiter. RMAAQ decisions in its capacity as arbiter are binding, but can be appealed to Québec's Tribunal administratif. The latter's decision may not be appealed to another judicial body except in the rare event that RMAAQ has overstepped its jurisdiction⁴³.

The government appoints eight superintendents, including a chair and three vice chairs. The choice of superintendents is left solely up to the government; there are no rules governing the appointment procedure. Commission hearing participants, especially representatives of food processing companies, criticized the lack of transparency in the member selection process for RMAAQ, as well as its current composition. Alliance de la transformation agroalimentaire (ALTA) argues in its brief submitted to the Commission that "The number of superintendents should reflect the economic importance of the stakeholders (farmers, processors, consumers, and others). In addition, the process for selecting superintendents should be more transparent and more open, to better meet the goal of fairness."

LIMITATIONS OF THE CURRENT SYSTEM

Because the world has changed so much in the last 50 years, we need to assess the real benefits, limitations, and drawbacks of a marketing system created when the market was far less sophisticated.

Although the current system has benefited farmers, it is inflexible in some ways and creates a dynamic that hinders the development of the agrifood sector and does not always serve the public interest. If its rigidities are not corrected or eased, they will work against the medium-term interests of farmers themselves. We must pinpoint the system's deficiencies and examine them objectively.

1. Running a monopoly

As we pointed out earlier, a marketing board is a monopoly with broad powers to intervene in the sale and marketing of agricultural products.

The extent to which marketing boards intervene varies by joint plan. But nearly all of the representatives of farmer labor organizations and federations who testified before the Commission praised the model they aspire to emulate: the joint plan administered by Fédération des producteurs de lait du Québec. In the view of many farm labor organizations, this is a mature plan that exploits all of the system's possibilities. The representative of Syndicat des producteurs de lait de la Gaspésie-Îles-de-la-Madeleine expressed at the Commission hearings a view widely held by farm labor organizations: "Dairy farmers are envied by many other farmers in Québec, because they have by far the most organized collective marketing system. The systems in place do a better job of protecting the revenue of dairy farmers."

42. According to Section 5 of the Act

43. Note that under Section 20 of the Act, the government can modify or void a decision by RMAAQ, but very rarely does.

Most joint plans exert an absolute monopoly on the sale of farm products. Only direct-to-consumer sales at the farm are outside their control. It is difficult to keep local markets or regional specialty shops supplied with products subject to such joint plans. Yet there has to be a simple and transparent way to get small amounts of local products into short distribution channels without marketing boards feeling that their very existence is threatened. Letting a little fresh air into marketing mechanisms would not hurt anyone and would enable farmers to forge personal ties with consumers and earn a better income on a portion of their production.

The stipulations and demands of some joint plans lead to odd situations. A rabbit farmer from the Charlevoix region, Jean-Sébastien Sauvageau, who sells his rabbits himself in the local market, testified as follows at Commission hearings: "I have to sell my rabbits to the labor organization and buy them back from the labor organization. I have to pay transaction and advertising costs even though, as the chair of Syndicat des producteurs de lapins himself says, no advertising is done since there's a shortage of rabbits [to supply the Québec market]. We should have the right to market our goods without being penalized." Keep in mind that the buying and selling of the rabbits discussed here is purely virtual; the bunnies never left the farm. Wouldn't you say this is a case of bureaucratic overzealousness? Is there a real danger that this producer/processor will jeopardize the collective marketing system and cause a collapse in the price of rabbits in Québec by handling the sale and marketing of his products himself?

The special situation of producer/processors is worth revisiting, to authorize them to take more initiative. The producer/processor status is not encouraged in large agricultural organizations. Producer/processors cannot vote in their own labor organizations on any question concerning farm product prices. Because they are also processors, and thus product purchasers, they are considered to have a conflict of interest of sorts.

More value should be placed on the role of producer/processors, who can help Québec better develop and diversify its agriculture, and some of whom have growth potential well worth exploiting. These entrepreneurs are better able to make certain types of farms profitable. With the right assistance, they can help create jobs and revitalize rural communities.

This assessment is shared by Solidarité rurale du Québec, which in its brief to the Commission said

[...] the bureaucratic constraints on producer/processors due to their unique position of having one foot on each side of the collective marketing system limits development and creates tensions. More broadly, the current system needs to make room for a diversified business model, focusing on added value and providing access to quota-restricted products, but on a small scale—especially for young people.

2. A slow, hard slog to product differentiation

Coop fédérée neatly summed up the new marketing reality in its testimony to the Commission: “We need to create a real value chain and move from a system dictated by farm product supply to one shaped by consumer demand.” Consumers are constantly seeking out new products that meet highly diverse and changing demands. They want products with less fat or sugar; or more omega-3, proteins, antioxidants, or fiber; probiotics; and other substances associated with health. They want different size packages, dishes that are easy to prepare or ready to pop in the oven or eat, fine deli items, and luxury products in attractive packaging.

In short, food product demand is increasingly fragmented. Even mass-produced items such as chicken can now be broken down into specialty products: all-grain-fed or antibiotic-free chicken, chicken of different sizes and breeds, chicken raised in a specific way, etc. They are high-end commodities, to use the Olymel representative’s term. Some of the most innovative processing companies revamp half of their product lines every three years. Conseil des industriels laitiers du Québec put the need to shift the paradigm this way:

The agriculture and agrifood industry must base its future positions and policies on a realistic analysis of our environment today, not an image from 1956. The consumer must come first as the basis for our efforts and the measure of our success. The consumer is king. We must be diligent about earning his or her trust.

A company’s competitiveness is still determined by how fast it can react to stated or anticipated consumer expectations in an environment as fluid and fast-paced as today’s. The vitality of Québec businesses is closely tied to their ability to respond quickly and well to consumer expectations. Québec, like all developed societies, must compete with foreign products that are often mass produced and sold at hard-to-beat prices. Some come from countries that have very low production costs due to their favorable climate and to working conditions and crop protection and environmental standards that are less strict than in Québec.

We can and must tighten our border controls to protect crops and compensate farmers for meeting some of our requirements. But it is mainly through differentiation that Québec agriculture will be able to compete. It is even a matter of survival.

As Coop fédérée pointed out, “Given our cost structure, it would be suicidal to take on countries with cheap production costs [...] Producing standard agricultural and agrifood products should not be part of our arsenal.”

The spokespersons for several marketing boards provided the Commission with examples of their flexibility and accommodations to encourage differentiated products. Fédération des producteurs de lait du Québec pointed out that organic milk was marketed by the board under advantageous terms and conditions for farmers. Poultry farmers cited a purchasing agreement signed with a major rotisserie chain to provide it with a regular supply of all-grain-fed chickens. Even Fédération des producteurs de porcs du Québec, which has a tense relationship with some processing companies, portrayed itself as very flexible and accommodating with regard to product differentiation. Many other examples could be given.

Solidarité rurale du Québec commented at Commission hearings that “Collective marketing is about leveling the playing field among farmers and guaranteeing standard product quality. That said, the potential to differentiate or showcase products within the collective marketing mechanism is limited.” The Commission shares this assessment.

Theoretically, there is no reason why a marketing board cannot keep a close watch on the market and seek to promote product differentiation. The efforts of some boards to do so should be commended. However, the current marketing system’s inherent constraints make product differentiation difficult.

Boards have sought to define what a differentiated product is. How is “coop pork” different from standard pork produced per Federation standards? And why should this supposedly distinctive pork receive a premium rating? That’s where the whole thing gets sticky. It is a legitimate function of a marketing board to negotiate the best price for all its members. For a board, a uniform price means that all farmers are being treated fairly. But uniform prices mean uniform products. In this kind of a system, you have to have good reasons to make room for differentiated products, especially if they also qualify for higher prices.

There is no way to administratively limit, much less regulate, differentiation and originality. Too much zeal in defining what makes a product special or distinctive ends up killing creativity and product demarcation. Differentiation is, in a sense, indefinable. Buyer response is essentially what confirms, after the fact and not in advance, real product differentiation. If consumers decide that a product rises in value by having a specific characteristic or because it is the by-product of a type of farming or processing they trust, then there is meaningful differentiation. If not, all attempts to rationalize or regulate will be in vain.

Consumer confidence is the key to differentiation. And that confidence is based largely on strict control of the differentiation process throughout the supply chain. The system must be credible and provable at all times. It must be possible to trace a product’s *history*, that is, to indicate, in the case of meat for example, the kind of animal feed used, the presence or absence of antibiotics, the livestock breeding methods used, the region and type of farm on which the animal was raised, the slaughterhouse, and soon the presence or absence of genetically modified organisms in the animal’s feed. In short, product history is the sum total of all organized efforts before the product is marketed, that is, its compliance with specifications by farmers who have committed to bringing the product to market. As the Olymel representative put it, “End consumers can’t see these attributes as clearly in the piece of meat sitting on their plate. So the new, intangible quality criteria must be guaranteed some other way than by the product’s appearance and laboratory tests. We must convince buyers that we can move from controlling to monitoring the front of the supply chain, and prove that we’re delivering the exact product we agreed to.”

In exercising their power, many joint plan administrators have resisted product differentiation. It took several years of laborious discussions before the pork marketing board agreed to payment terms conducive to heavy hog production. This may be an extreme case, but it nonetheless illustrates the system’s potential inertia.

The representative of Rôtisseries St-Hubert complained to the Commission that it took “several years and the cast-iron determination of our CEO, Jean-Pierre Léger, before we were able to satisfy our clients and offer a 100% grain-fed, air-chilled chicken. It’s ridiculous that it would take so much time and be so arduous. We’re currently in the process of getting approval for antibiotic-free chicken. I’ll spare you the details of all the hurdles that lie in wait for us in the current system.” Jean Lefebvre, vice president of Conseil des chaînes de restaurants du Québec, had this to say at the same hearing: “It’s hard to understand why it took someone like Jean-Pierre Léger [Rôtisseries St-Hubert CEO] threatening to buy chicken from Toronto’s Maple Leaf to get [the marketing board] moving and why it took five years to reach an agreement.”

We would also add that Fédération des producteurs de lait du Québec remains leery of dairy ingredient production, despite the well-documented reports detailing the potential for additional value the niche offers.

Obviously, we need to distinguish between problems with the system itself and the behavior of the people who administer it. In any system or organization there can be slipups, errors in judgment, overzealousness, or excesses. It would be irresponsible to throw out the collective marketing system because a few people got carried away. However, there is good reason to be concerned that a monopolistic marketing body overseen by the government can allow such excesses and resist the development of differentiated products, harming the growth and consolidation of our markets. How marketing boards administer the law in such situations poorly serves the interests of Quebecers, agriculture, and agrifood.

3. Product management

One of the major powers exercised by many joint plans is called “product management.” In concrete terms, in addition to negotiating the best price for a product, the marketing board reaches supply agreements with each buyer—mainly processing companies—through several joint plans. The board factors in delivery histories to individual processors to avoid destabilizing companies. It can also consider various factors that fluctuate with the economy. The board’s administrators may also change priorities or be influenced by the quality of their relationship with the processing company. For marketing board representatives, their work greatly simplifies product sourcing for processing companies. It spares them the need to negotiate with multiple producer groups and guarantees them stable product deliveries.

The product management power invested in a board that has a sales monopoly has three consequences.

First, this model complicates, and in some cases even prevents, direct relationships between buyers and producer groups. If a processor wants to offer consumers a differentiated product per specifications and a strict monitoring and traceability scheme, it must go through an intermediary, the marketing board, rather than dealing directly with a producer group agreeing to deliver the product for an agreed price and set terms and conditions. As we pointed out earlier, marketing boards have a hard time dealing with non-standard situations.

This is a major problem of the collective marketing system as currently managed. Farm federations argue that if the system allows direct negotiations between a producer group and a buyer, the entire system could collapse. They fear the return of a situation in which buyers could sow division among farmers, causing prices to fall in the medium term. They express great distrust of the premiums that ad hoc or supplemental agreements institute or call for in support of product differentiation.

In an October 2007 editorial of *La Terre de chez nous*, the president of Union des producteurs agricoles summed up their attitude:

If buyers can afford to pay premiums, then the base price is lower than what they can really pay. These individual kickbacks of all kinds are unfair and non-transparent and undercut farmer independence. In addition, they weaken their collective power to negotiate fair compensation in the marketplace.

This view reflects an attitude toward price negotiation that assumes the *other side* has not exhausted all its leeway. Its basic premise is that all participants in a market should receive the same price for products that are, by definition, deemed identical, even though in reality they may differ.

Can we not imagine the price also reflecting an added value recognized by the market, that is, by consumers, who are willing to pay higher prices for some products and not others? While still protecting farmers’ interest in getting the best price, we can probably create incentives for interested companies to undertake the development of differentiated products and reap more benefits if consumers respond favorably.

In France, farmers who make the milk used in Beaufort cheese are paid a **premium of 100%** over the base milk price negotiated nationally because the market recognizes Beaufort cheese as a very high quality product resulting from specific livestock production conditions in the Alps and an ancestral cheese-making process specific to the region. Do the dairy farmers of the plains and valleys of Normandy feel their Beaufort colleagues are receiving special treatment? Do they see themselves as victims of a systemic evil compared to mountain farmers?

Many of the comments at the Commission hearings stressed how arbitrary and debatable the rules were for delivering product to processors. Neither the market, nor the quality of the relationship between a buyer and producer, nor their proximity offers any sure guarantee of delivery—the only thing that counts is the monopoly marketing board's negotiating power. Sources of supply affect both the quality and quantity of the products delivered to a company. This situation has no equivalent in other business sectors. It is often difficult, even for a cooperative, to purchase products from its own members. For example, with today's pork production shortage, Olymel is unable to procure more than 1.2 million pigs a year for the production of "coop pork," even though it sells it for a higher price.

Relations between producer groups interested in joint plans and marketing boards sometimes get ugly and degenerate into unproductive and costly legal battles. This is what happened with maple syrup producers and processors. In its presentation to the Commission, Conseil de l'industrie acéricole noted that in 2005–2006 according to the annual report of RMAAQ, the maple sector alone took up "48% of RMAAQ's public hearings, 65% of the inquiries and decrees, and 67% of that administrative tribunal's arbitration cases." Other legal remedies have been or are still being heard at Tribunal administratif du Québec and the Court of Québec.

The Commission heard testimony from several sources showing just how poisoned and unhealthy the climate in the maple industry was. Yet Québec holds a leading position in world markets in the production of maple, a product that has great added value potential. It is sad to see major industry stakeholders and marketing organizations engage in destructive internecine warfare, which can only serve to stifle development in the sector. Keep in mind that Québec produces nearly 85% of the world's maple crop.

Such a system offers few incentives for innovation. Should a company succeed in marketing an innovative product, it has to convince the marketing board it needs more to meet demand.

For a supply-managed product subject to quotas, attempts to procure a larger volume of raw material in order to capitalize on a new product niche would entail even more complicated negotiations, since the innovating business would have to fight the opposition of firms making mass-produced products. It would have a tough time circumventing their resistance through an individual agreement with interested farmers, even one that offered a better price for the product in question.

4. The disconnect between cooperatives and their members

Cooperatives have played a decisive role in the growth of agriculture and agrifood, both in Québec and many countries. Some Québec cooperatives are leaders in their field and continue to successfully fulfill their primary mission. The Desjardins Group's president stressed the importance of the cooperative system at the Commission hearings:

In an era of takeovers, offshoring, operations streamlining, and more and more events that disrupt the internal balance of communities, local institutions, such as cooperatives, certainly represent an anchor, since their existence enables populations to maintain some control over their future.

One of the foundations of the cooperative movement is the establishment of a relationship with members. Farmers band together in a cooperative, pool their resources, share costs, collectively assume risks, and share a portion of the profits. But the obligation placed on cooperatives and all other buyers to procure farm products from a marketing board substantially dilutes the relationship between cooperatives and their members. If members cannot enter into supply agreements with other members of their own association, the basic utility of the cooperative is called into question. It becomes just another a processing firm. Other private firms can do as much. In fact, the only thing really distinctive about a cooperative organization in this kind of system is the payment of patronage dividends on the cooperative's net profits. That hardly makes cooperatives much different from other enterprises. Not only that, the situation does not provide much incentive for cooperatives to seek out new members, since all this does is cause patronage dividends to be distributed among a larger membership pool.

Conseil québécois de la coopération et de la mutualité sees this disconnect between agricultural cooperatives and their members as a serious threat to the future. It had this to say at the Commission hearings:

A legislative framework of this kind makes it impossible for cooperatives to maintain their relationship with their producer members, who have to go through a farm labor organization to sell what they produce [...] On account of something beyond the control of its members—i.e., a law—a stake is driven through the cooperative, whose member producers find themselves dispossessed of their enterprise. The medium term existence of cooperation is compromised.

5. A dynamic that runs counter to value chains

In many fields of economic activity, labor organizations, businesses, subcontractors, certain clients, and public institutions—especially of education and research—have succeeded in working together to craft strategies aimed at their collective development. Pushing past the disagreements that can divide them on a day-to-day basis on many issues, they have found common ground and work together on critical challenges that go beyond the individual interests of a group of people or companies. Industrial clusters, industry associations, sector committees, value chains, technology hubs, and ACCORD committees⁴⁴ are some of the ways partners from the same sector work together. This need to bring together the main players in a particular field of activity is heightened in many cases by foreign competition. Division is the worst possible response when the competition is well organized. We must work together to fend off challenges and leverage our competitive advantages.

Various attempts at joint action have been made in the agrifood sector. There have also been ways for stakeholders to share their vision of industry development, notably at “discussion tables.” But results have been mixed—there was no real leadership at these tables. Interest waned when participants realized how little impact the tables could have on policies in their field. Widespread distrust, especially between producers and processors and between processors and distributors, may also make concerted action less appealing.

44. ACCORD: Action concertée de coopération régionale de développement. In each Québec region, ACCORD projects aim to build regional production systems that are competitive both in North America and globally by identifying and developing niches of excellence, which can become the region's brand image.

Farmers consider their negotiating power with buyers very important. This strategic advantage plays an undeniable role in farm product prices. But there is more to producer–processing company ties than the mere exercise of power. Some major Québec labor organizations have realized that there are limits: you can win a negotiation and lose the war if the industry stagnates. That is why they try, often aggressively, to negotiate the best wages and working conditions for their members while acting as partners to some companies, even to the point of investing their own capital in them. Coop fédérée noted that the business relationships fostered by the joint plan formula had “an element intrinsic to the Québec model that we will have to adapt if we hope to position ourselves in a market segment that requires a value chain approach.”

ALTA and the leading agricultural cooperatives issued a strong call at Commission hearings for creating value chains, or mechanisms whereby stakeholders come together and lay the groundwork for a system to take root and grow. ALTA made the following comment to the Commission:

The ability to adjust quickly to increasingly complex, diversified consumer demand is a key to success. In order to seize new opportunities quickly and be competitive in domestic and international markets, agrifood processors will have to do more to promote innovation through strategic alliances, including the value chains approach. [...] The government should encourage a win-win solution to secure a competitive edge, in order to boost the total receipts of the agrifood sector.

Concerted action is essential to the sector’s growth. And it can be done without compromising the parties’ respective missions, while ensuring the best possible prices for farmers and improving the competitiveness of the other links in the agrifood chain.

6. The public interest

The *Act respecting the marketing of agricultural, food and fish products* stipulates that RMAAQ will consider consumer interests and protection of the public interest in fulfilling its mission⁴⁵.

Obviously, public interest is a broad notion, and the factors that should be considered are many and varied. However, everyone agrees that the public interest is something other than the interest of a particular group.

To genuinely protect the public interest, RMAAQ must exercise a real counter-balancing power with respect to joint plans and marketing boards, especially as the government has granted very broad regulatory authority to the boards.

It is therefore essential to keep a salutary watch over the powers administered by the marketing boards. This is a normal rule of governance in democratic societies. RMAAQ must conduct the equivalent of impact studies on the proposals marketing boards submit to it.

The Commission cannot detail every aspect of the public interest as it applies to the management of marketing boards. However, it can reasonably identify at least four areas of application. This means that, when reviewing draft regulations submitted as part of a joint plan or similar initiative, RMAAQ should at least take into account

- The effects of the proposals submitted by the marketing board on agricultural production and the government’s financial aid programs
- Their impact on the development of the food production system and the agrifood sector’s competitiveness
- The proposals’ effects on regional development and land use
- The proposals’ effects on demand for Québec products and their response to consumer pricing and product diversity expectations

45. Section 5 of the Act

The Act should be amended to clearly set out certain criteria that translate the notion of public interest.

REVAMPING THE COLLECTIVE MARKETING SYSTEM

Collective marketing offers benefits to Québec farmers. Despite the valid criticisms of the system, the original intent of the law instituting collective marketing still needs to be served. However, the system also needs flexibility and a breath of fresh air to reposition it as a key driver in innovation and the development of agriculture and agrifood.

We have to get past the “all or nothing” mentality that any change in collective marketing will cause the entire system to collapse. This attitude leads to a wholesale, unconditional defense of the status quo, including the rigidities and obvious constraints that are seriously compromising the future of Québec agrifood.

1. What we should keep

The Commission actually recommends returning to the original objective at the time the Act and marketing boards were instituted. It believes we should preserve four basic attributes of the marketing system:

- **Bringing all farmers together to collectively negotiate farm product prices.** Weakening farmers' negotiating power and their ability to get the best price for their product in the market is out of the question. The aim of negotiations is to enter into agreements with buyer representatives to set product prices, with some products obviously falling into premium categories based on objective criteria, such as those already used, notably concerning quality. All buyers must pay the negotiated prices, regardless of the place of sale or distribution channel. This is the base price. In practice, it would apply to a high percentage of total production, since the extent of farm product differentiation is not very high overall in Québec at this time.
- **Transparency.** Measures to make the marketing system more flexible must not promote new kinds of practices that would divide farmers and lead, in the medium term, to lower base prices for agricultural products. Agreements between buyers and producer groups must be transparent. For example, if a producer group is offered a premium for an actual or anticipated product enhancement, the premium must be the same for all farmers in that group who agree to supply the product, and the agreement must be public. Arbitrary arrangements must not be allowed to creep into these relationships. Here again, fairness and the best possible price must override all other considerations.

- **Universal payment of dues.** In joining forces, farmers pool their strength and agree to share certain costs. A few farm federations levy direct dues on their members or their products for various purposes, in particular research and advertising. This collective effort by farmers through their marketing boards benefits everyone, and it is essential that all farmers involved in production contribute. Farmers who sell products outside the channels directly controlled by their marketing boards must still pay the dues, especially for research and development purposes. However, these farmers should not be charged transportation costs for a product that does not travel.

Granted, dues on common farm products should be levied judiciously, as they affect production costs, the system's competitiveness, and the price of products sold to the consumer. However, they are a convenient tool, especially when used to fund research, training, and innovation.

- **Oversight powers for RMAAQ.** Given the powers granted to boards, supervision by RMAAQ is essential to the proper functioning of the collective marketing system. Basic respect for the principles of transparency demands that an organization oversee marketing activities and watch out for the public interest as a check on the powers delegated to the bodies representing the interests of the group, in this case farmers. Arbitration powers for RMAAQ are also necessary, though best exercised as little as possible, since unrestricted negotiation of agreements is far preferable to the intervention of an arbiter.

2. What should be changed

The following proposals aim to open up and adapt the marketing system, "bring in some fresh air" as some people put it, without challenging its basic goals.

The changes reflect one inescapable reality: the market is now consumer oriented, and consumers increasingly want differentiated products. Marketing systems must be able to respond quickly and efficiently to their demands.

This will require the following changes:

- **Selling through short distribution channels.** Supplying a local market with small amounts of products involves completely different mechanisms than the marketing of food products through major retailers. Farmers must be given more latitude to sell their products at stands on farms or in villages, in local public markets or at counters featuring typical regional products, and at other establishments involving short distribution channels. Local sales of this kind partly offset the difficulty farmers have getting shelf space in grocery stores.

Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec should define exactly what is meant by "short distribution channels." We will not attempt to here, but suffice it to say that such distribution channels should meet the following minimum requirements:

- The farm products sold, whether raw or processed, must come from the immediate area and be identifiable to an individual farmer or producer/processor who handles his or her own product marketing (hence the term "short channels" as in short distances).
- The place of sale must not already be supplied in whole or in part by a distributor.
- The place of sale must meet all applicable health and food safety standards.

The sale of farm products at such places would not be subject to a marketing board. Farmers interested in selling products via short channels would have to register with the marketing board, and forward to the board or another marketing organization if applicable, in some form or another, the dues normally charged on the sale of farm products and used to fund research and development in the sector.

- **Supplemental agreements on differentiated products.** It is essential, as we noted earlier, that as many people as possible, maybe even all farmers, participate in negotiating prices. It is also important in today's world to facilitate freely negotiated, supplemental agreements between companies interested in marketing a differentiated product on the one hand and groups of farmers with an interest in the product on the other who are willing to comply with companies' specifications and other conditions.

Since no board would be involved in the sale of differentiated products, the supplemental agreement process should be regulated and monitored. Consequently:

- A regulation under the *Act respecting the marketing of agricultural, food and fish products* should set out objective criteria for ascertaining whether a given agreement between a buyer and a group of farmers qualifies as a case of farm product differentiation. For example, it would specify that the initiative, usually supported by specifications, involves developing and marketing a product that differs from basic products, either as a result of specific livestock breeding or crop-growing requirements, the protection of a regional specialty or original processing method, or the targeting of a clearly identified commercial niche. Regulatory guidelines would provide a framework for the process of entering into supplemental marketing agreements, which would no doubt prevent abuses yet not attempt to define what a differentiated product is. The thoroughness of the process would be analyzed, not the product itself.

- RMAAQ would study proposed agreements between companies and producer groups based on the criteria set out in the regulation pertaining to the differentiation process. RMAAQ would exercise the same supervisory powers over these agreements it has over joint plans.

- The prices agreed to under supplemental agreements could never be lower than the price negotiated nationally. The marketing board involved should be informed of the transaction between the farmers and the buyer.

- Dues earmarked for the development of the production system would be collected and forwarded to the marketing board.

It is essential that the process be transparent.

- **Expanding concerted action.** It is clear that the price such buyers offer to pay for the farm products will reflect the balance of power between farmer representatives and buyers. The parties are not involved in a partnership or codevelopment exercise. However, except for price negotiations, many issues in agricultural system development should bring them together more than they push them apart.

The collective marketing system includes a tool that is not widely used, called a *coordination chamber*. One of the only joint plans to use it is the one for strawberries and raspberries. Sections 135 to 147 of the *Act respecting the marketing of agricultural, food and fish products* set out the rules for the creation and operation of a coordination chamber. Broadly speaking, a marketing board or an association interested in the development of the agriculture and agrifood sector puts in a request for one. The coordination chamber is generally multipartite and includes stakeholders from various backgrounds, including production, processing, distribution, etc. Coordination chambers work together in a spirit of codevelopment and look at the factors that impact the growth of a production system, such as research, quality, advertising, workforce training, market exploration, and brand or appellation protection. The Act also provides for the minister to designate a consumer representative to the coordination chamber if so desired.

Should the government agree to subject a broader range of farm products to marketing levies, notably for research, innovation, training, and development purposes, it is important that industry stakeholders reach a consensus on where these funds should be allocated.

In the event, it would be reasonable to link the continued and/or expanded use of farm product dues to an obligation to manage the funds in concert, that is, through a body that includes farmers, processors, distributors, and consumers. This is especially important for funds devoted to research, innovation, and training. Government would participate as an observer. The coordination chamber seems the ideal place to handle the management of such funds. It is reasonable to expect that partners working together in such a forum might soon expand their focus from the management of funds to all of the issues and challenges of the agriculture and agrifood sector or their production system.

- **Revamping RMAAQ governance.** RMAAQ is widely perceived outside of farm labor organizations as a body whose organizational culture, attitude, and decisions are geared to the interests of farmers. That may be overstating things a bit. However, the government must take steps to ensure RMAAQ's impartiality in the agrifood sector and allow it to play its primary role as the guardian of the industry's and the public's general interests.

To begin with, RMAAQ must more rigorously apply the notion of public interest to its guidelines and decisions. In particular, concerns about the overall competitiveness of the agriculture and agrifood sector and of regional development must be considered in every case.

Second, the process for appointing superintendents must be made more transparent. Some laws governing certain public bodies set out the process for naming officers. Examples include the acts establishing Commission des partenaires du marché du travail, Commission de la santé et de la sécurité du travail, and Commission des normes du travail, which specify where different categories of officers must come from. The government could follow their example and stipulate that the procedure for appointing superintendents must, for example, require that two officers be chosen from a list of candidates suggested by a farmer association, two others from a list of candidates put forward by processor and distributor representatives, and so on. The lists should be made up of competent people who are considered to have good judgment and be sound managers.

Recommendation

Consequently, Commission sur l'avenir de l'agriculture et de l'agroalimentaire québécois recommends

- 14.** That the collective marketing system continue to serve as the basis of the system for negotiating farm product prices between producer groups and buyers and that it be made more flexible to accommodate the new realities of food marketing in Québec, and to that end,
- That Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec define the places of sale for farm products that qualify as short distribution channels, and that consequently
 - Product sales in such places be exempt from the authority of a marketing board
 - The selling price be equal to or higher than the base price
 - No regulation limiting the sales each producer can make nor provision obligating farmers to be personally present at the place of sale be adopted, given the relatively low volume of short distribution channel sales
 - Farmers who sell products in short channels pay to the marketing board or any other applicable marketing organizations the corresponding research and development dues
 - That the prices of farm products, once a joint plan is in place, be negotiated between the marketing board and buyer representatives, and that the prices negotiated be considered the base prices for the various product classes
 - That the *Act respecting the marketing of agricultural, food and fish products* be amended to allow the establishment by regulation of easily verifiable, objective criteria for determining whether an agreement between a buyer and producer group qualifies as a potential case of product differentiation
 - That a producer group and a buyer or buyers' association be allowed to enter into supplemental agreements to develop and market a differentiated product, provided the agreements comply with the regulation's criteria and
 - All members of the producer group are offered the same price, which may not be lower than or equal to the price negotiated provincially by the marketing board
 - The sales and marketing board and RMAAQ receive a copy of the agreement between the producer group and the buyer or group of buyers
 - RMAAQ analyzes the draft agreement and approves it based on the criteria for product differentiation agreements
 - The farmers are required to pay the marketing board dues for price negotiation, research, advertising, and production system development costs

Recommendation

- That dues be levied, following discussions between agrifood representatives and the government under the farm product collective marketing process, to support research, training, and development for a given agricultural system, and that the funds collected be managed jointly by the farmers, processors, and distributors in a coordination chamber as provided by the *Act respecting the marketing of agricultural, food and fish products*
- That the *Act respecting the marketing of agricultural, food and fish products* be amended to stipulate that the eight RMAAQ superintendents be appointed using the following procedure:
 - Two people chosen from a list of five names submitted by farmer representatives
 - Two people chosen from a list of five names submitted by food processing and distribution company representatives
 - Two people with recognized professional skills, but not occupying any management positions with agrifood sector organizations
 - Two superintendents, including the chair and chief executive officer, at the government's discretion
- That the *Act respecting the marketing of agricultural, food and fish products* be amended to state that RMAAQ must take into account, when considering the public interest, the effects of proposed actions or its decisions on
 - Farmer incomes and government programs to support agricultural production
 - The competitiveness of the agricultural and agrifood sector
 - Regional development
 - Demand for Québec products
 - The diversity of products available to consumers and the price of the products

Food Processing and Distribution



6

The Québec food processing sector⁴⁶ counts over 1,500 businesses that, together, employ nearly 70,000 workers. These companies process a large range of products: fresh milk, other dairy products (butter, yogurt, cheese, etc.), meat, baked goods, pastries, chocolate and other types of candies, fruit and vegetables, fruit juices, soft drinks, animal food, and tobacco. Rounding out the list are beer, spirits, and wine.

FOOD PROCESSING

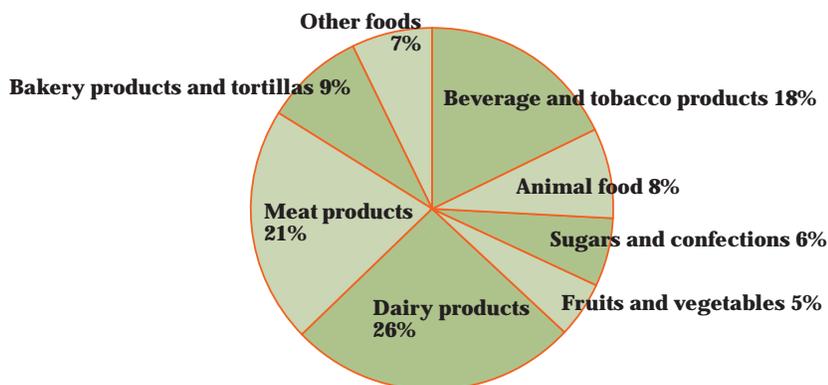
1. A portrait of the sector

In 2006, total sales in the food processing sector amounted to \$17.9 billion, 12.7% of all shipments of manufactured goods in Québec. The diagram below illustrates the relative contribution of various products segments to this amount.

Food processing companies are present in all regions of Québec although employment in the sector is concentrated in the Montréal metropolitan area (65%) and, somewhat less so, in the Québec City and Chaudière-Appalaches regions (16%).

Like the whole of the Québec economy, food processing is dominated by small and medium-sized businesses. Almost 80% have fewer than 50 employees, and only 4.5% have more than 250. These big food processing companies are responsible for 43.5% of all jobs in the sector. The industry leaders include Saputo, Coop Fédérée, Agropur, Aliments Breton, Industries Lassonde, Exceldor, and Biscuits Leclerc. Cooperatives are very common in the sector, being responsible for 25% of manufacturing shipments. Cooperatives are particularly active in the dairy product, meat, animal food, and maple product segments.

Table 11
BREAKDOWN OF MANUFACTURING SHIPMENTS, Québec, 2006



Source: STATISTICS CANADA, *Monthly Survey of Manufacturing*, CANSIM table 304-0015, July 16, 2007

46. We use the term "sector" here to designate all food processing companies. Statistics Canada would use the term "subsector."

A segment informally known as “niche processing” has developed in recent years. In most regions in Québec, small businesses have developed a diverse range of specialty products: cheeses, deli meats, organic food, confections, alcoholic beverages, local products, and so on. Some producer/processors are in this category. They start by producing on a small scale, but some have the determination and ability to expand beyond the local market.

Québec food processing companies buy more than \$8.5 billion in agricultural products. In 2006, they were responsible for 72% of Québec agricultural market income.

A very large proportion of agricultural production in Québec is sold after processing, which gives a good idea of the importance of the relationships farmers and processors maintain. Almost 30% of food processing is done under supply management⁴⁷.

Processed foods move through the following channels:

- 45% of shipments are sent to markets in other provinces or countries
- 37% are sent to markets in Québec
- 11% undergo further processing or are incorporated into prepared foods
- 7% are used to manufacture agricultural inputs (animal feed, seed, etc.)

In 2006, sales of Québec food products in the other provinces amounted to \$5.182 billion, and exports to other countries stood at \$3.757 billion. A large range of products was exported:

- Cereals (wheat, oilseeds, legumes, animal food, meal, and flour)
- Live animals and meat (pork, beef, lamb, horsemeat, poultry)
- Dairy products (cheese, powdered milk, yogurt)
- Fruit (fresh, frozen, canned, dried, concentrated and unconcentrated juice)
- Vegetables (fresh, frozen, canned, dried, pickled, fresh and processed potatoes)
- Seed (grain, potatoes, forages, legumes, oilseeds)
- Sugar products (honey, maple, sugar, sugar-based products)
- Coffee and cocoa products
- Bakery products
- Beverages (nonalcoholic, beer, distilled products, wine)

2. Main challenges

Food processing companies face a world of intense competition. On both the domestic and international markets, they are up against multinational firms that have developed universally known and often prestigious brands. These large companies benefit from economies of scale that smaller businesses like those in Québec have difficulty achieving. Some benefit from climatic and other conditions in their home countries that give them a clear advantage and lower their production costs. Price competition is increasingly fierce. Québec processing companies, while competing with foreign businesses on the Québec and Canadian as well as foreign markets, also compete among themselves on the domestic market.

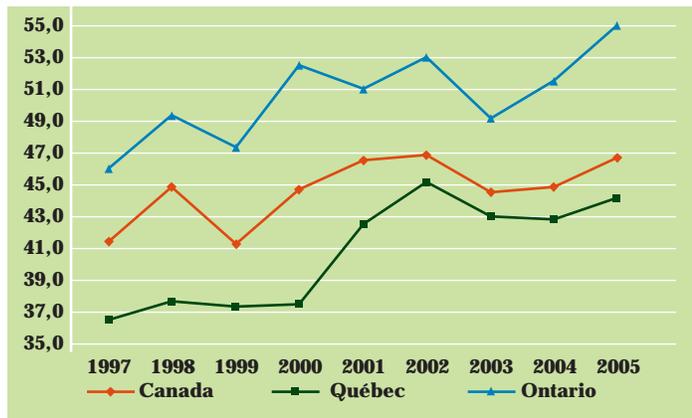
47. MAPAQ, *L'activité bioalimentaire au Québec, bilan 2006*

Competition can only grow keener in the future, so let's look at the main attributes businesses need to thrive in this highly competitive environment.

Productivity. According to Statistics Canada, the productivity of Québec processing companies, although somewhat improved, is still lower than in Ontario and the rest of Canada, as illustrated in Table 12. This observation does not apply only to the food processing sector—it concerns the entire manufacturing sector in Québec, which has suffered from an even greater productivity gap with the United States for many years.

Table 12

TRENDS IN LABOR PRODUCTIVITY IN THE FOOD PROCESSING SECTOR
(dollars per hour worked, in 1997 dollars)



Source: STATISTICS CANADA, *Canadian Productivity Accounts and Provincial Economic Accounts*

Productivity is usually expressed in terms of real value added per hour worked. This data does not in any way indicate that workers in Québec work less or not as well as their North American colleagues. Many factors influence work productivity, the most important being the size of company, the level of mechanization or modernization, worker qualifications, and research and development.

The struggle for productivity gains is long and often hard. For many years, manufacturing companies in Québec have counted on the weak Canadian dollar to compensate for a lack of productivity vis-à-vis the United States, but the situation is no longer in their favor.

We can no longer look optimistically to the future if we do not make up productivity ground against our main competition.

Although it will be difficult to increase the average size of Québec companies in the short term, processors can act on three fronts: R&D, worker training, and investment in machinery and equipment. Fédération des travailleurs du Québec (FTQ) recognizes this problem as well as the necessary remedy: "Despite its importance, the food processing sector suffers from low productivity. We must bring the industry up to standard." However, technological renewal requires investment.

Investment. Québec has long underinvested in its manufacturing sector compared with other sectors and other provinces. Food processing is in the same state as manufacturing, which is worrisome. Mr. Alban D'Amours, president of the Desjardins Group, had this to say: "Investments have progressed in fits and starts, and the outlook for 2007 is even negative, which does not augur well for the current and future state of the processing industry."

As Table 13 illustrates, investment has actually slowed since 1998.

Table 13**INVESTMENT IN FOOD PROCESSING, MANUFACTURING, AND ALL ECONOMIC SECTORS IN QUÉBEC (1998–2006) (\$MILLION)**

Subsectors and sectors	1998	1999	2000	2001	2002	2003	2004	2005	2006**	2006/1998 (%)
Food and beverage	497.5	523.7	429.9	459.7	662.3*	406.7	350.4	365.0	427.4	-14.1
Manufacturing as a whole	4,983.8	6,078.8	6,735.1	5,290.4	4,489.7	5,081.4	4,713.1	4,124.3	3,904.8	-21.7
Economy as a whole (except housing)	26,079.5	27,889.2	28,673.3	28,117.3	28,499.3	29,176.7	32,530.6	32,392.0	33,844.6	+29.8

Tobacco is not included in this data.

* Increase in investments in two industry categories: dairy and sugars & confections

** Preliminary data

Source: STATISTICS CANADA. *Private and Public Investment*. CANSIM Table 029-0005 updated October 10, 2007

To increase productivity and improve working conditions, food processing companies must accelerate the modernization of their facilities, particularly by investing heavily in machinery and equipment.

Alliance de la transformation agroalimentaire (ALTA) clearly recognizes this: "Processors need to make substantial investments in equipment and machinery to allow them, in the long term, to make up for low productivity and ensure their economic viability."

The Québec government has introduced measures to increase investment in the manufacturing sector. For example, it has reduced the capital tax and, until this is eliminated entirely, offers investors accelerated amortization and a 15% tax credit on capital. Last November, the government announced an action plan aimed at increasing investment in the manufacturing sector.

ALTA raised three problems regarding access to financing:

- Only 4.1% of Investissement Québec's budget in 2005–2006 was earmarked for food processing, even though the industry is responsible for 13% of Québec's manufacturing shipments.
- Société générale de financement (SGF) is not active enough in the food processing sector.
- Private and public venture capital firms have ROI expectations that food processing companies cannot meet.

Let us examine these criticisms. An analysis of Investissement Québec's financial reports for the last three years reveals that financing for the food processing sector represented between 2.8% and 5.4% of the institution's total investment. These reports also show that between 6.6% and 7.8% of the projects accepted by Investissement Québec were from the agrifood sector, which reflects the fact that these companies submit smaller projects.

It is true that there is a certain imbalance between the size of the food processing sector and the amount of resources accorded to it by Investissement Québec. The government corporation should look for means to correct this, although it should not necessarily attribute financing strictly according to the relative GNP of each economic sector.

ALTA's criticisms of SGF are well founded. SGF has invested in only two food processing start-ups since 2004⁴⁸. But this is a general phenomenon, not one specific to food processing. In the past five years, SGF has focused primarily on businesses already in its portfolio.

The venture capital situation is more complex. Venture capital firms are mostly interested in high tech or very innovative companies from the "new economy," companies likely to develop and market new or highly innovative products with great commercial potential. Not all projects offer this possibility. On the other hand, there are many public and private investment funds, called "development funds" (to distinguish them from "venture capital funds"), whose requirements are more compatible with "traditional" sectors of the economy.

To facilitate access to capital, governments have also put in place or supported the creation of funds that, while encouraging investment, do not have the same yield expectations as venture capital firms. In Québec, this is particularly the case for

- Loans from Investissement Québec
- Local investment funds (FLIs)
- Regional development funds (FDRs)
- Loans from La Financière agricole du Québec to food processors associated with producers
- Regional funds supported by the government:
 - Solides, in partnership with the FTQ's Solidarity Fund
 - Capital régional et coopératif Desjardins (CRCD)
 - Regional economic initiative funds (FIER)

The federal government gives similar support:

- Financial aid from Farm Credit Canada (FCC)
- Funds managed by community futures development corporations (CFDCs)
- Certain loans from the Business Development Bank of Canada (BDC)
- Agriculture and Agri-Food Canada's Food Processing Development Fund (FDTA)

Is this capital enough? Many in the industry actually consider it too generous. Many also believe that it is not really the level of financing that is the problem but the quality of development and investment projects.

Apart from capital availability issues, one fact remains: food processing companies, although they urgently need to modernize their facilities and equipment to contend with intense competition and the substantial rise in the Canadian dollar, maintain a low and clearly insufficient level of investment given current circumstances. We must stimulate investment in food processing. We must catch up. The Desjardins Group believes the situation is urgent: "The government needs to give strong support to [companies'] efforts and create conditions conducive to growth and enhanced competitiveness."

Investment assistance. Large companies have access to resources that allow them to plan their investment projects and to structure the required financing. SMEs do not generally have this expertise. Although most business consultants work in the private sector, some ministries, notably Ministère du Développement économique, de l'Innovation et de l'Exportation (MDEIE), have set up teams to help entrepreneurs develop their investment plans. The recent action plan to support the manufacturing sector includes \$51 million over five years to provide SMEs access to productivity consultants.

These support services are clearly lacking in the food processing sector. Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec (MAPAQ) created TRANSAQ (Transformation alimentaire Québec) to provide this support on a province-wide and a regional basis. However, the resources are clearly insufficient. Given the efforts that will be needed to boost investment in the food processing sector, it is essential to reinforce TRANSAQ's team of sectoral experts and increase the number of employees in the regions who have the expertise to help businesses better plan and structure their investment projects.

Innovation. In 2003, Québec food processing companies spent 0.27% of the value of their shipments on research and development, compared with 0.17% in Canada as a whole and 0.18% in Ontario. Nevertheless, R&D investment in food processing is significantly less than that in the manufacturing sector as a whole (0.3% compared with 2.3% in 2002)⁴⁹. Moreover, although these companies have the possibility of collaborating with universities, research centers, and a number of technology transfer centers, only 15% of processors use these public R&D institutions.

It is crucial that food processing companies develop a culture of innovation—the future of entire swaths of the industry depend on it. This is particularly true in product development.

ALTA contends that the eligibility criteria for R&D tax credits are ill suited to the food processing sector. Although no one disputes that the notions of innovation and product development must be clearly defined—a relatively complex task—and without claiming that launching new products is as simple as changing recipes, it should not be necessary to invent a new molecule to be eligible for R&D tax credits. The current criteria apply fairly effortlessly, it would seem, to new biotechnology products, but do not do justice to the R&D efforts needed to develop less “sexy” products or certain types of manufacturing or food preservation processes. Making the rules on access to R&D tax credits more flexible would help encourage innovation in food processing companies.

Groupe conseil R & D agricole & agroalimentaire du Québec made a compelling presentation to the Commission hearings in Saint-Hyacinthe on the current underuse of fiscal instruments to support research and development. According to the group's spokesperson, “A host of projects could benefit from R&D. The possibilities are limited only by our imagination. [...] Unclaimed tax credits in the agriculture and agrifood sector amount to between \$40 and \$50 million per year. [...] We deprive ourselves of an important stimulus that could otherwise help the agricultural and food processing industry in Québec improve its competitive position on the world market.”

To encourage businesses to take advantage of the expertise at universities and technology transfer centers, tax credits are available to defray the cost of applied research or trials done in tandem with public institutions. Companies that work with college technology transfer centers (CCTTs) can receive refundable tax credits, but those that use the technology innovation services of Institut de technologie agroalimentaire (ITA) in Saint-Hyacinthe are not eligible. Likewise, the government is developing technology transfer centers in cegeps, but not at ITA. These are purely technical distinctions; the government wants to encourage partnerships between private companies and Ministère de l'Éducation, du Loisir et du Sport. As ITA comes under the authority of MAPAQ, it does not enjoy the same treatment. We must get rid of these administrative barriers.

Inputs. In its presentation to the Commission, ALTA particularly emphasized the difficulties processing companies face in buying inputs and marketing their products.

They feel caught between a rock and a hard place, “between the marketing monopolies with their great political and economic clout and the distribution oligopolies that set the conditions for their suppliers.”

Moreover, processors of supply-managed foods can expect little growth in Québec, especially if they specialize in niche markets. The high cost of their main inputs make products processed in Canada uncompetitive abroad. In addition, the Québec market is, as we know, small. As a result, some companies have sought to capitalize on the broader Canadian market where they enjoy much easier access. But now even this vein has been fairly well tapped, and they must look elsewhere for most of their growth.

DEVELOPMENT OF NEW PRODUCTS

1. A strong trend to new products

Agricultural production and food processing in Québec are largely dominated by what is known as “commodities,” that is undifferentiated bulk products. It is estimated that less than 10% of food products in Québec are really differentiated. Despite this, each year more than 4,000 new products show up to “push off the shelf” an equal number of old products.

The trend to new products is already well established and is bound to increase.

The Fédération des travailleurs du Québec (FTQ) shares this view: “The future of food processing is in differentiated, higher value-added products emphasizing quality, health, local production, and the environment. Public authorities must lend their encouragement.”

Increasingly fierce competition in mass markets has spurred a growing number of farmers, processors, and distributors to take an interest in differentiated products. Agropur noted, “To meet their food needs, consumers increasingly seek innovative, value-added products as well as ready-to-eat products. [...] We estimate that today, for example, value-added products amount to 30% of the fresh milk market.”

But the development and commercialization of a new product requires a level of expertise that SMEs do not always have. In fact, a significant R&D effort is needed, as we will see in chapter 8. Although Québec processors with access to innovation display great creativity in developing new food products, SMEs are less successful at actually bringing their products to market. This shortcoming is acknowledged by industry experts and by ALTA itself.

In the nineties, the Québec government set up the Impact-SME program to encourage small manufacturers to hire engineers to help them modernize their businesses more quickly and increase productivity. The government paid half the new employee's salary for the first year. At first, many SMEs who signed up for the program were skeptical about how an engineer could help their businesses. In most cases, however, within a year they came to understand the often indispensable contribution these professionals make to their companies' development. Likewise, many small food processors would benefit greatly from the expertise of specialists in the marketing and processing of food products. They could also make good use of the technical knowledge of processing specialists.

2. Niches to consolidate and develop

Certain key niches should be consolidated, while others urgently need exploring because they clearly have great potential for agriculture and agrifood in Québec.

This is especially the case for **cheese production** in Québec. In just a few years, we have developed an impressive array of very high quality cheeses. We must consolidate this agrifood segment. A large majority of cheese processing companies are still at the cottage industry stage and they market on a very limited scale. They have very little access to research and training and have relatively little support for quality control. Some companies, however, have the capacity, due to their expertise and the quality and renown of their products, to move beyond this stage—and we must help them make this important step. Support is needed to preserve the quality of Québec cheeses and to facilitate the expansion of cheese processing companies and their access to Québec and Canadian markets.

Organic food is a rapidly growing segment in Québec and Canada, as in many industrialized countries. Organic food sales in Canada amount to about \$1 billion per year, or 2% of total consumer expenditures on food⁵⁰. It is estimated that more than 80% of organic food products sold in Canada are imported, primarily from the United States, and that they are marketed as processed, prepackaged products.

There is very little data on organic food consumption in Québec. We know, however, that in 2006 the large food chains (Loblaw, Sobeys, and Metro) sold organic food to the tune of \$75.6 million, which represents less than 1% of their total sales. Prepackaged products such as soy drinks and yogurt comprise about 75% of organic food sales in Québec food chains. Organic food is also marketed directly to the consumer through other channels, particularly public markets, on-farm counters, and some specialty stores. In Canada, it is estimated that only 41% of organic food sales occur in supermarkets.

Organic food is, therefore, an attractive niche that food processing and producer/processors should consider.

The shortfall in available supply of organic food versus consumer demand amply justifies developing a concerted strategy for expanding organic food processing.

50. MAPAQ, « Les produits biologiques dans la grande distribution alimentaire au Québec », *Bioclips*, Vol. 10, No. 4, November 2007

It would even be possible to take the lead over the other provinces in this sector, as we have done in the specialty cheese sector (Québec produces 57% of specialty cheeses in Canada).

According to many experts, the production of **dairy ingredients** has strong potential for growth. With research support, innovative companies in many countries have developed large-scale production of over 30 types of dairy ingredients and hundreds of functional dairy mixes. In a study published in May 2004⁵¹, Professor Paul Paquin of Université Laval identified some 20 big companies from various countries that each produce between 300 and 10,000 tonnes of protein isolates, protein hydrolysates, and peptides, as well as many other milk extract products. Dr. Paquin estimated that Canadian companies used more than 82,000 tonnes of protein ingredients. He noted that some of these products sold for up to \$500 per kilogram, compared with \$15 per kilogram for milk powder (2004 prices). He further noted that “the manufacturers of these nutritional and natural health products are constantly looking for more effective, higher value-added ingredients, and the sector is growing strongly.”

In a study for Novalait produced in collaboration with several colleagues in April 2007⁵², Dr. Paquin reported that worldwide sales of dairy ingredients rose 77% between 1995 and 2004. He predicted no slackening in growth: “There is an increasingly strong and specific demand for dairy ingredients. This trend will only accelerate with the development of more and more functional foods and nutritional products to respond to consumers’ health and aging concerns.”

Up to now, Fédération des producteurs de lait du Québec has systematically opposed the importation of dairy ingredients into Canada and has sought to limit their use by the processing industry⁵³. This defensive attitude has not greatly affected the development of these products in many regions of the world nor their use by Canadian food processing companies. But it prevents Québec companies from seizing product and market development opportunities that would benefit Québec farmers and processors.

Québec has acquired world-class expertise in certain aspects of “proteomics,” the science of proteins. With these researchers’ support, Québec companies could develop high value-added dairy ingredients to replace current imports. This category of imports will undoubtedly grow because dairy ingredients are increasingly used in the production of foods demanded by certain categories of consumers.

Québec could also move into profitable international market niches. Québec companies can very well market ice cream made with “real cream” or cheese made from whole milk, and at the same time develop very innovative food substances. The two are not incompatible.

51. Paul PAQUIN, *Étude du potentiel de marché des ingrédients laitiers protéiques au Canada*, Dairy Research Centre, STELA, Faculty of Agriculture and Food Sciences, Université Laval. The study was done for Agriculture and Agri-Food Canada, the Canadian Dairy Commission, and Dairy Farmers of Canada.

52. Paul PAQUIN, *et al.*, *Étude prospective des ingrédients laitiers*, 2015, April 2007

53. The Canadian Dairy Commission grants permits, under certain conditions, for milk that can be used as source of dairy ingredients, primarily in confectionaries.

The **wine and spirits sector** is also underestimated. It is true that Québec's climate puts certain limits on wine growing—it was long thought impossible to profitably grow wine in Québec. But a few pioneers took the plunge, progressing slowly at first, but increasing their expertise and resources over time.

The exploration and experimentation stage is now over, although producers are continuing to seek ways to improve the quality of their products. Not only are wine growers in several Québec regions currently producing wines of steadily improving quality, but they are increasingly making their mark at prestigious international competitions. Certain alcohol products, including wine and ice cider, have achieved great renown.

Quebecers drink 170 million bottles of wine per year, but buy only 150,000 bottles of Québec wine annually (0.09%) from Société des alcools du Québec (SAQ), out of a total estimated production of one million bottles⁵⁴. In 2006–2007 SAQ sold \$15 million worth of Québec wine and spirits, an increase of 12% over the previous year.

It is now possible—essential even—to boost wine and spirits production. Every time an imported product is replaced by a domestic one, it creates wealth and economic spinoffs for Québec communities and for the province as a whole.

The grape and wine sector is a compelling example of multiuse agriculture—combining agricultural production with a host of recreational, gastronomic, and tourism activities.

The Ontario government has supported its wine growers in their decision to produce a wide diversity of wines, some of which are excellent. In particular, it helped them implement quality control mechanisms and together with the Liquor Control Board of Ontario (LCBO), which is responsible for alcohol sales in the province, has systematically promoted Ontario wines.

Nutraceuticals and functional foods is another market niche little known to Québec food processing companies. The main health-promoting ingredients used in food are prebiotics and probiotics, bioactive peptides and health proteins, antioxidants, natural vitamins and minerals, and lipids (omega-3). According to the *National Business Journal*⁵⁵, the functional food and nutraceutical product market had sales of close to \$90 billion worldwide in 2005 and will continue to grow strongly (this market was estimated at \$39 billion in 1997). Statistics Canada counted 389 companies active in the segment in 2002, with \$2.9 billion in sales⁵⁶. Expansion in this market is spurred by increasing consumer health concerns.

Institut des nutraceutiques et des aliments fonctionnels (INAF) at Université Laval noted in a brief to the Commission, “the relatively high cost of R&D, particularly clinical nutrition studies.” Only companies with a big capacity for innovation and R&D can fill this niche, but the market segment is so important that leading Québec food processing companies should actively consider it. The R&D fiscal instruments already in place should be incentive enough for these firms to get involved. What's more, the research potential of INAF and the expertise of its personnel are further strategic benefits for Québec businesses.

54. According to Association des Vignerons du Québec

55. Quoted from a joint brief to the Commission by Institut des nutraceutiques et des aliments fonctionnels and Association pour les ingrédients santé en alimentation

56. STATISTICS CANADA, *Enquête sur les nutraceutiques et les aliments fonctionnels*, 2005

Brand development. Almost all thriving economic sectors in industrialized countries depend on a small number of flagship companies that fuel development in their sector due to their R&D capacity and their substantial networks and resources. Many SMEs collaborate in various ways with these large companies or benefit from the markets they open up.

As we have seen previously, Québec has several large food processing companies that have the capacity to consolidate their brands and make them known throughout Canada. These companies are not as big as the food giants Nestle, Kellogg, or Kraft, but if they want to compete with these multinationals they must “impose” their brands on the market. This is, however, an expensive, and somewhat risky undertaking.

Governments should lend their support to leading food processors by sharing some of the costs associated with brand development, to the extent permitted by international trade regulations.

The marketing channels of some of Québec’s bigger companies could be tapped to bring differentiated products to market. This is a winning strategy because large companies can collaborate with producers and other processors to develop unique Québec products and launch them onto international markets.

Presence outside major centers. About 80% of food processing jobs are concentrated in the Montréal and Québec City metropolitan areas. Nevertheless, most of the administrative regions have at least a few food processing companies, and food products could be processed locally almost everywhere.

Creating and consolidating processing companies is one of the main ways of diversifying and revitalizing the economies of outlying regions and is a logical extension of agricultural development. More attention should be paid to *niche processing* and to producer/processor initiatives.

One of the most important reasons for supporting food processing is to encourage local and regional development.

Financial aid for establishing new businesses in the regions should be part of an overall strategy to help exploit the specific agrifood characteristics of a region and help market its specialty products in Québec and beyond.

The agriculture and agrifood sector should also pay greater attention to the effects of its strategic decisions on regional development. For example, Fédération des producteurs de lait du Québec adopted a policy of delivering milk to processors at a fixed price, no matter where the business was located. There was already a strong trend to concentration in this industry, so this policy has encouraged processing plants to set up near big consumer markets, namely in the Montréal metropolitan area. Residents of some milk-producing regions see truckloads of raw milk continually leave their area, only to return full of processed dairy products, without seeing any economic spinoffs from the processing. It is one thing to share shipping costs among all producers; it is another to give all companies a uniform price for milk delivered to the plant, whatever the distance from the farm.

To facilitate the emergence and development of more food processing companies, several improvements must be considered: more local and regional encouragement for entrepreneurship, aid to startups, access to support measures and financing for producer/processors, increased availability of facilities such as slaughterhouses, access to advisory services and places for doing trials on new products, and so on.

Manufacturing companies in the resource regions⁵⁷ benefit from tax credits and tax holidays on investment and production costs in the regions. These tax credits will be available until 2010.

The government also has a subsidy program called the Processing and Development Support Program for Regional Agricultural Products.

In this regard, Groupe d'agrotransformateurs de l'Abitibi-Témiscamingue asserted that "the food processing support program instituted in 2002 as part of the set of aid measures for the resource regions stimulated the emergence and development of this industry. In fact, Abitibi-Témiscamingue was one of the regions that took the most advantage of the program".

No money has been available under the program since 2004. A program of this type should be made available to all processing companies in Québec.

The main startup and expansion support instruments for businesses are now managed by regional and local organizations: local development centers (CLDs), local investment funds (FLIs), and regional development funds (FDRs). Some of these organizations are even under the authority of municipal elected officials in regional councils and MRCs.

It is mainly at the local or regional level that rural economic diversification strategies must be elaborated, particularly support programs for food processing companies and measures to help producer/processors. Provincial investment support programs complement those of the other two levels of government.

Reserved designations. The Europeans pioneered the use of reserved designations for certain products characteristic of a particular region or town, specific manufacturing or processing techniques, or a particular growing or rearing method. The reserve designation system comes into play before a product is marketed. It establishes production specifications, a legal framework defining the area or specific characteristics of the product, quality control mechanisms in the production and processing stages, and a system for monitoring compliance with the designation. Almost all reserved designation systems use a traceability protocol.

In 1996 Québec adopted the *Act respecting reserved designations*, which was replaced in 2006 by the *Act respecting reserved designations and added-value claims*. The act recognizes three types of designations:

- Designations of origin and protected geographical indications
- Those relating to the specificity of a product, indicated by its composition and traditional character of the raw materials used
- Those relating to a production or manufacturing method that distinguishes the product from others in the same category

So far, only one reserved designation—for organic food—has been established under the authority of Conseil des appellations agroalimentaires du Québec. In fact, the Act has yet to be implemented, as the Act's regulations have not yet been adopted by the government.

In the absence of a prescriptive framework, designation labeling is in a state of confusion. Any number of designations can be found in retail stores, referring to characteristics generally associated with "appellations contrôlées": local products, artisanal products, farmhouse or "old style" products, those identified with a specific region, and so on. Some of these products have definite nutritional and gastronomic qualities, but their labeling is first and foremost a marketing ploy, and the current confusion only maintains the ambiguities that the Act aimed to eliminate.

57. Gaspésie-Îles-de-la-Madeleine, Bas-Saint-Laurent, Côte-Nord, Nord-du-Québec, Saguenay-Lac-Saint-Jean, Mauricie, and Abitibi-Témiscamingue

Many witnesses called for rapid implementation of the *Act respecting reserved designations and added-value claims*.

Solidarité rurale du Québec, lamenting that the Act had yet to produce results, reminded the Commission that its implementation required substantial resources: “Protecting designations requires strong, proactive measures that will send a clear, unequivocal signal to all those who usurp and abuse these designations.” Solidarité rurale added that in addition to monitoring mechanisms, we need “to develop expertise and set up market watch services and back these up with reserved designation support programs.” It is clear that the successful implementation of reserved designation systems will require the combined commitment of farmers, processors, and the government.

Exports. Like other developed regions or countries with small populations, Québec has the capacity to produce goods and services far in excess of the needs of the domestic market. The province’s economy therefore tends to look beyond Québec’s borders to Canadian and international markets. In 2005 exports counted for 52.7% of our GNP. This places Québec among the most open economies in the world (7th among OECD countries).

We trade on a large scale—almost a third of all jobs in Québec depend on trade with our close, and not-so-close, neighbors.

Exports are an irreplaceable source of wealth and jobs. Our growth and standard of living are largely dependent on our ability to sell products and services to the other provinces, to the United States, and around the world. Many high quality jobs depend on export products that owe their existence to our ability to innovate and the know-how of our workers.

The value of Québec’s agriculture and agrifood exports to the rest of Canada and abroad is almost \$9 billion per year. This interprovincial and international trade in Québec food products generates thousands of jobs. This out-of-province trade also enables businesses to sell enough to be able to afford the investments needed to respond to the demands of Québec consumers and provide good working conditions for their employees.

Businesses cannot realistically hope to meet with success in international markets if they have not developed the level of expertise and professionalism needed to service the Québec market.

Table 14

VALUE OF QUÉBEC’S INTERNATIONAL AND INTERPROVINCIAL EXPORTS AND NUMBER OF JOBS CREATED (2004)

Exports	Value (\$billion)	Jobs Created	Percent of total number of jobs
International	91.9	643,800	17.5 %
Interprovincial	52.1	474,800	12.9 %
Total	144.0	1,118,600	30.4%

Source: Ministère du Développement économique, de l’Innovation et de l’Exportation du Québec

The Québec–Canada Agrifood Export Group, which represents 350 exporting manufacturers and 50 providers of specialized services, plays a vital role in supporting Québec's exports. This organization also manages provincial and federal programs for product and generic promotion on international markets. Acknowledging the strong rise in the Canadian dollar and the growing number of countries on international markets, the Export Group stated in its brief, "Given that Québec's economy is highly export-driven due to our small population, we need to be very imaginative to survive, and we must diversify our exports to be less vulnerable over the long term." The Export Group is convinced that the American market offers the greatest potential for growth. It invited Québec ministers—especially the ministers of MAPAQ and Ministère du Développement économique, de l'Innovation et de l'Exportation—to harmonize their export support programs.

Collaboration. All too often, interaction in the agriculture and agrifood industry is at the mercy of power politics. But this is understandable—the interests of buyers and sellers, like those of employers and employees, are different. Sometimes power struggles are unavoidable.

In a global economy, however, Québec farmers, processors, and retailers are not the ones who control prices. The key players are often outside Québec, and only by working together can we successfully compete with them.

In many economic sectors, despite competition among businesses and the adversarial relations in play in collective bargaining, the various players have succeeded in coming together around common interests, challenges, and opportunities.

The Desjardins Group reminded the Commission that "farming operations and processing companies have common challenges. The value chain's success as a whole depends on the ability of all players to be real partners." Coop Fédérée said it agreed with the Global Commerce Initiative, stating that "Consumers demand that retailers and manufacturers listen to them more carefully. [...] Our challenge is to view our sector as a part of an integrated value chain, while remaining true to the commercial principles of full and free competition."

The value chain approach has brought about some degree of collaboration among the leading players in the field, but is losing steam. It is crucial for industry players to be able to come together and have opportunities to clearly express their ambitions and constraints, and thereby agree on collective strategies for developing the sector.

Recommendation

Consequently, Commission sur l'avenir de l'agriculture et de l'agroalimentaire québécois recommends

- 15.** That the Québec government update and implement a strategy to step up investment, innovation, economic diversification, and establishment in the regions by food processing companies over the next ten years. This strategy should
- Give special support for investment in machinery and equipment
 - Develop a specific program to encourage processing start-ups modeled on the Processing and Development Support Program for Regional Agricultural Products. (this program should be available to all regions)
 - Promote Investissement Québec's services and financing options to the food processing industry and encourage a closer relationship between Investissement Québec and companies in this sector
 - Get Société générale de financement involved again in the food processing industry through its investment activities
 - Fund the hiring of sectoral specialists and project planning and development consultants by Transformation Alimentaire Québec at its main office and in the regions
 - Increase Transformation Alimentaire Québec's budgetary resources so that it can complement other government measures by awarding service contracts to consultants to assist promoters in developing their projects and facilitate access to various sources of financing
 - Set up a program for at least five years to subsidize 50% of the first year cost to food processing SMEs with fewer than 100 employees of hiring university graduates specializing in processing techniques, marketing, and related disciplines
 - Help structure the Québec cheese value chain: increase access to research, expert advice, training, and marketing support and establish quality control mechanisms
 - Develop a wine and spirits development strategy whereby government and producers would cofinance advisory services, technology transfer, quality control, and wine and spirits promotion
 - Create ad hoc consortiums or groups of public research institutions and private enterprises, including cooperatives, to identify the main development and marketing opportunities for dairy ingredients, functional foods, and nutraceuticals (these institutions and businesses can benefit from measures in the Québec Research and Innovation Strategy and from refundable R&D tax credits)
 - Adapt eligibility criteria for refundable R&D tax credits to the specific characteristics of food processing, particularly as regards how product development is defined

Recommendation

- Make Institut de technologie agroalimentaire (ITA) eligible for all measures intended for college transfer and technology centers, and make companies eligible for refundable R&D tax credits when they enter into agreements with ITA's Technological Innovation Service or any other of its research, technology transfer, or startup services
- Encourage companies to establish or expand in Québec's regions, particularly by supporting development of regional specialties
- Enlist Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec (MAPAQ) in the development of reserved designations by implementing the *Act respecting reserved designations and added-value claims* and by updating the Reserved Designation Support Program with a view to sharing costs between the government and interested producers and processors
- Support brand development by Québec's main agrifood companies, in particular by recognizing the cost of developing and consolidating a national brand as expenditures eligible for financial aid programs to manufacturing companies
- Harmonize the export support policies of MAPAQ and Ministère du Développement économique, de l'Innovation et de l'Exportation and more systematically involve Québec's foreign offices in facilitating the province's agrifood exports
- Promote joint action in planning and stimulating Québec's agrifood sector

FOOD PRODUCT DISTRIBUTION

1. Main characteristics of the industry

In 2006, food product sales amounted to \$20.4 billion⁵⁸, divided among

- Supermarkets: \$14.6 billion (72%)
- Convenience and specialty food stores: \$3.5 billion (17%)
- Beer, wine, and liquor stores: \$2.3 billion (11%)

Hotels, restaurants, and institutions (HRI) bought \$10.7 billion worth of food products in 2006⁵⁹. The restaurant sector was responsible for 75.7% of this amount. The wholesale and retail food product and restaurant sectors employ about 338,000 people⁶⁰.

Three large firms—Loblaw (Provigo, Loblaws, Maxi, Maxi et cie, etc.), Sobeys (IGA, IGA Extra, Sobeys, Tradition, BoniChoix, Rachele-Béry, etc.), and Metro (Metro, Super C, Loeb, A&P, etc.)—control 75% of grocery distribution in Québec⁶¹ and 57% of the Canadian market. This led ALTA to comment, “Québec’s grocery market is one of the most highly concentrated in the world.”

Although most grocery retailing is done through supermarkets and independent grocers (the majority of which are supplied by the three big food chains), food products are sold in a large variety of establishments—stores associated with regional chains, bakeries, fruit and vegetable stores, butcher shops, fish shops, fine food stores, small stores selling frozen food, and specialized shops, either independent or affiliated with the chains, who sell specific, organic, niche, or ethnic products. It is estimated that stores not specialized in groceries (Costco, Wal-Mart, Zellers, drug stores, etc.) occupy about 15% to 16% of the market and that their share is increasing.

New distribution channels are opening up. Among the more structured is Supermarchés GP whose 15 supermarkets in Québec City and areas east put special emphasis on products from Québec. Other examples are public markets, local product and on-farm counters, and what is known as *consumer-supported agriculture*. These new sales channels remain on the margins, but a small share of a \$30 billion market (retail trade and HRI) can mean a lot to some producers and processors.

2. A high level of integration and concentration

Grocery stores either belong to large distribution chains or to independent entrepreneurs, most of whom are affiliated with one or the other of the three grocery chains. Due to this relationship, independent stores purchase most of their inventory from the chains.

Combined sales of chain stores and affiliated outlets in Québec are therefore 95.9% of retail grocery sales⁶².

58. STATISTICS CANADA, *Retail Survey*

59. CANADIAN RESTAURANT AND FOODSERVICES ASSOCIATION and MAPAQ

60. STATISTICS CANADA, *Survey of Employment, Payrolls and Hours and Labour Force Survey*, FISHERIES AND OCEANS CANADA, QUÉBEC REGION, July 2007

61. 2004 data excluding HRI

62. MAPAQ, *Bottin statistique de l'alimentation*, édition 2006

A store's relationship with a grocery chain greatly influences its purchasing decisions, especially regarding product selection and origin. The degree to which an individual store can choose to buy products locally depends on whether it is owned by or simply affiliated with a chain, but its discretionary power is nevertheless limited by the supply and marketing strategies of the large distributors⁶³. It is very much in the interest of the large chains that a maximum of shelf space in stores they control or supply be allotted to products they market in their channels in Québec and throughout Canada.

The systems put in place by the large chains, especially their warehousing and shipping operations and their advertising fliers, are designed to maximize the efficiency and profitability of distribution and retailing. Given the low profit margins in grocery distribution, companies have no choice but to rely on volume.

To continue their growth in Québec's mature food distribution market, food retailers have developed their own private labels (President's Choice, No Name, Compliments, Merit Selection, and so on). This strategy allows them to generate customer loyalty and increases their control over the products made available to consumers.

Private labels have grown tremendously. Grocery chains first became interested in the concept in the early nineties, and by 2005 private labels occupied 20% of the retail food market⁶⁴.

Clearly there is room for growth since private labels hold 25% market share in Canada and the United States, and even 45% in some European countries.

According to ALTA, "the marketing of Québec products via distributor brands (private labels) is an important alternative sales channel for Québec processors. These private labels offer attractive growth opportunities." Nevertheless, processing companies that want to exploit this new niche must meet distributor standards. They must also be able to produce on a regular basis, all year long, and in sufficient quantities to supply a large number of retail stores.

It is important to note that by developing their own product lines, grocery chains have caused a shift in roles and altered their relationship with producers and processors. According to MAPAQ, "for the past 20 years or so, distributors have added activities such as marketing, product design, and logistics to their traditional roles, activities which previously⁶⁵."

The development of private labels clearly provides business opportunities to Québec processing companies, but at the same time, the distributors have become their competitors. Moreover, private labels do not necessarily contain food products made in Québec. They also compete with the national brands that Québec's large processing companies have worked to develop and consolidate. For example, a President's Choice brand of fruit juice competes with the same type of juice marketed by Lassonde under the Oasis brand name.

Consumer demand for the lowest possible price has driven strategy for the big grocery chains. The phenomenon is exacerbated by the advent of stores not specialized in food, particularly since Wal-Mart began selling groceries⁶⁶. Their influence can already be felt throughout the entire food distribution network in Québec and North America. They will continue to be a driving force in food distribution market trends.

63. Locally sourced products rarely represent more than 10% of the store's merchandise.

64. ACNielsen Global Services, *The Power of Private Label*, 2005, and MAPAQ

65. MAPAQ, "La dynamique de la distribution alimentaire d'hier à aujourd'hui," *BioClips+*, August 2007

66. Wal-Mart opened its first *Supercenter* in Ontario in 2006, offering 120,000 different items (standard Wal-Mart stores have an average of 80,000 items, all categories combined).

The high level of concentration in the food retail market is mirrored, although to a lesser degree, in the HRI market.

The HRI network comprises a multitude of establishments—restaurants, catering firms, bars, cafeterias, and other foodservice providers in schools, hospitals, nursing homes, and detention centers. Several large independent distributors specialize in selling to these establishments.

The HRI network represents an alternate sales channel for Québec food products. Many restaurants and institutions are supplied directly by local companies, who can adapt all, or part of, their production to the specific needs of their clientele. By choosing this niche, producers and processors can avoid the constraints of large scale distribution often imposed on them by the big retail chains.

3. The major food distribution challenges

Food distributors face competitive challenges on several fronts: competition among distributors themselves, with stores not specialized in food, with foreign companies that covet market share, on selling prices, as well as on the cost of inputs, warehousing, shipping, and distribution.

At the same time, the dynamic of food distribution poses a challenge to the entire agrifood sector. When products come from around the world, and new players in Québec and elsewhere aggressively seek to carve out a place in this mature market, how can Québec farmers and processors provide consumers with the quality foods they demand, at affordable prices?

Responding to consumer choices

Supermarket shelves may contain more than 25,000 different food items⁶⁷. This is a distributor response to the unprecedented fragmentation of consumer demand. This fluid and very multifarious demand stems from a number of factors.

The multiethnic population of large cities, as well as changes in Quebecers' eating habits in recent years, has spurred food product diversification. Consumer health concerns push distributors to make fresh fruits and vegetables available to their customers all year long, as well as a range of other products associated with healthy eating. Working people increasingly strapped for time have increased demand for products that are ready to eat or easy to cook. Shoppers seeking to indulge in life's pleasures or celebrate special events have driven demand for luxury and exotic foodstuffs and local specialties. A certain portion of the population seeks to support farmers and processors either from their home regions or Québec generally, or has more confidence in the safety of local products and pays more attention to product origin. Others choose on the basis of ethical concerns relating particularly to working conditions or what they deem to be inadequate environmental protection in countries from which we import food products.

67. MAPAQ, "La dynamique de la distribution alimentaire d'hier à aujourd'hui," *BioClips+*, August 2007

Clearly, if they want to see their products on grocery shelves, farmers and processing companies must make greater effort to develop innovative new products on an ongoing basis.

Short distribution channels. The Commission received many presentations supporting the development of these alternative food marketing channels. Witnesses expressed the desire to buy locally, to support rural development, and to establish direct links between farmers and consumers.

Consumers still make most of their food purchases in supermarkets and grocery stores, but a growing number of Quebecers want alternatives to the big food stores.

One of the alternatives evoked the most frequently was the **public market**, which is an ideal meeting place for consumers, farmers, and processors. The public market is a great place to introduce local products and is also conducive to gauging consumer reaction to new products. Public markets are important outlets for some farmers and processors, especially locally or regionally.

In recent years there has been a sharp increase in the popularity of public markets. Established markets in big cities have reported an increase in sales volume, and many mid-sized and small towns in outlying regions have made public space available to farmers, processors, and crafters. The recently created Association des marchés publics du Québec has launched a study on the needs of its members and on sales volumes in public markets, in order to design a development strategy. There would appear to be substantial growth potential for this type of food marketing mechanism.

Another marketing channel mentioned frequently by witnesses was **on-farm sales**. Union biologique paysanne would like to encourage this type of food distribution, which involves only small volumes. It recommends “changing the act concerning the marketing of agricultural products to give priority to on-farm marketing in joint marketing plans, provided such sales are direct to consumer. In our opinion, this would be an excellent way to revitalize regional economies and local commerce.”

Équiterre was one of the organizations that promoted the idea of **consumer-supported agriculture** during the hearings. Under this marketing model, producers or producer groups deliver baskets of agricultural products directly to consumers at predetermined intervals. Usually the baskets contain fruits and vegetables, but other products are sometimes included, such as meat, cheese, honey, and processed goods. Certain institutions, particularly schools, have shown interest in this type of arrangement.

Consumer-supported agriculture accounts for only a small portion of all the agricultural produce consumed in Québec, but it allows small-scale farmers, or those in emerging fields of specialty, to market their goods and to build close relationships with members of their communities. A similar mechanism—the solidarity market, supported by Friends of the Earth—is making inroads. Some consumers can even buy their product via the Internet and discuss once a week with producers and producer/processors, who then have more time to devote to their businesses than when they take their products to public markets.

The growth of agrotourism in Québec's regions may also stimulate on-farm sales and the emergence of **specialty counters and stores** that market local food and alcohol products. Tourists and local consumers are generally the first to develop a taste for new products and local particularities. These specialty counters can serve as springboards to broader commercialization of these products.

The rise in transportation costs will inevitably benefit direct-to-consumer marketing channels. In North America, food products are transported an average of 2,600 kilometers.

This is another reason for Québec products to take their rightful place on grocery shelves and be profitably marketed through various marketing channels. According to Regroupement national des conseils régionaux de l'environnement du Québec, "buying locally reduces food dependence, boosts investment in the community, and contributes to the economic development of the region and to job creation." Farmers also benefit—their profit margins are usually greater when they market directly to the consumer.

Wine and liquor sales in Québec. SAQ has a monopoly on the buying and retailing of wine and liquor on the domestic market, except for beer and alcoholic products sold directly by farmers at the production site or in public markets. Imported wines bottled in Québec can be sold at other outlets such as convenience and grocery stores, but they must go through SAQ, which collects the provincial and federal taxes and adds markup on the alcohol.

In recent years SAQ has tried to give more space to Québec wines and alcohol products in its stores, but its efforts are considered much too timid, especially compared to those of the Liquor Control Board of Ontario (LCBO).

LCBO openly trumpets its mandate to promote Ontario wine. With this support, and aided by favorable climatic conditions, Ontario's wine industry has expanded tremendously. Ontario wine has captured 39.2% of the provincial market.

In the short and medium term, Québec wine producers cannot hope to meet such a large portion of the domestic demand for wine, but they must be given the means to expand and better access to Québec consumers. This is primarily a marketing issue. SAQ's monopoly should encourage it to develop close relationships with Québec wine producers, to develop marketing strategies with them that are compatible with trade regulations, and to better promote Québec wines and alcohol products.

Access to grocery shelves. One of the themes brought up the most frequently at the hearings, and almost unanimously so, concerned access to grocery shelves for Québec agricultural products. Witnesses called for Québec products to enjoy greater availability and visibility in retail stores.

This is a complex question however. In its brief, the Canadian Council of Grocery Distributors stated a basic rule of the industry: "Year in, year out, about 8,000 products appear or disappear from shelves. Those that succeed in making it onto grocery shelves and staying there are value-added products that have earned customer loyalty. The best way to get on grocery shelves is to be innovative. In other words, the more a product is original and has added value in its particular category, the greater its chance of carving out a place for itself in stores." The whole purpose of grocery stores is to sell food products, and products that don't sell well, wherever they come from, don't remain in the store.

The representative of the Québec Food Retailers Association added, "Our members are adamant—they must make money on high-volume items, usually national brands, to be able to carry an inventory of low-turnover items such as regional products. Of course there are exceptions, but generally retailers must strike a fine balance between these two product categories to stay in business."

If producers and processors in Québec want their products on grocery shelves, they must meet customer expectations for quality, originality, and diversity. Consumers have high standards that must be met. Many Québec processing companies are already doing so to a great extent.

The big grocery chains have sales in the billions of dollars per year in Québec. They have a strong foothold everywhere in the province. They interact daily with Québec producers, processors, and consumers. This creates relationships, expectations, and opportunities for networking and building partnerships. Assuming that producers and processors meet the quality and diversity expectations of consumers, there is room for closer collaboration between players in the agrifood value chain.

Representatives from Supermarchés GP gave the example of their strategic agreement with beef farmers in Bas-Saint-Laurent, which allows them to offer a distinctive meat product that is free of growth hormones and meets the highest safety and tracking standards (Natur'Boeuf). Their spokesperson stated, "We contribute to regional development—our customers are local, and our goal is to shorten the supply chain as much as possible. [Launched in 2006], our alliance should produce economic spinoffs for the region of more than \$18 million by the end of 2007."

Many witnesses at the hearings advocated the adoption of regulations to ensure an adequate presence of Québec products in food stores. Centrale des syndicats démocratiques (CSD) commented, "Somehow food stores must be forced to open their shelves to local products."

It would not be a positive step to regulate retailing or to force distributors to have a minimum level of Québec content on their shelves. The Commission feels it is more useful to encourage greater dialog and collaboration among farmers, processors, and retailers and to rally the support of consumers so that the agrifood sector benefits as much as possible from the leverage effect of the big grocery chains.

Grocery stores are by far the place consumers go the most to shop. Information on what they do and do not buy there is extremely important to producers and processors looking to get a feel for the market. It is particularly important for SMEs, which do not generally have the means to do expensive market studies on consumer trends. For example, food distributors know for a fact that in 2004 only 6.8% of ice cream sold in their Québec stores was produced here. Precise data is available on thousands of products sold in food stores. Using this information, a processor can analyze whether a well-targeted Québec product could succeed on the market. This is a good reason to encourage strategic alliances between production, processing, and distribution companies.

But, in fact, consumers are the ones who have the final word. And since retailers are very sensitive to consumer demands, Quebecers should express themselves more often and more openly about the values that influence their choice of food products. If they think it is important that Québec products be present and visible in food stores, retailers will pay attention to that.

Those who would like to see greater visibility for Québec products on grocery shelves should first try to get consumers on board.

As Coop Fédérée noted at the hearings, quoting from a study on the future of agriculture in Ireland, “We must improve our ability to convince consumers to choose our products.”

It is important to monitor Quebecers’ buying habits, both in grocery and nonfood stores. The information collected would be very useful in developing or updating government food and nutrition policies. It would also help in tracking consumer trends, to the benefit of the agrifood sector as well as the consuming public.

The HRI network, which does \$10 billion in sales per year, can strongly influence the development of agricultural production and food processing. The large companies that sell to this network have already forged numerous alliances with Québec suppliers. It is important that they join the efforts to study food purchase patterns in Québec.

The Québec government must also rethink its food procurement policies for institutions (schools, hospitals, nursing homes, detention centers, etc.) in light of its important role in public health issues such as obesity. The time is ripe for MAPAQ and Secrétariat du Conseil du trésor to review how government contracts are awarded, and to involve representatives from the agrifood sector in efforts to promote proper nutrition. Of course, interprovincial trade regulations must be respected, particularly concerning public tenders.

The Québec government has adopted an action plan for 2006–2012 called *Invest for the Future* that promotes healthy lifestyles and the prevention of weight-related problems. The action plan particularly targets youth and school settings. This is a wonderful opportunity to exercise leadership by providing fresh, healthy products to schools, daycare centers, and sports centers in Québec and to educate the public about healthy eating.

Labeling of Québec products. A first thing we need to remedy is the confusion over what constitutes a Canadian product. Under federal legislation, a product can be labeled *Product of Canada* if 51% of its total cost of production is Canadian even if the raw materials don’t come from Canada—for example, you can find olives in the grocery store in tins marked *Made in Canada*. In their brief to the Commission, Table filière des légumes de transformation called for an end to this confusion: “With current regulations, there is no difference between cucumbers imported from Asia and those produced in Canada. If both are processed in Canada, they both can be labeled “Product of Canada.” If there is a safety problem with the imported product, the entire Canadian production is also affected.

There is even more confusion around the labels *Canada Fancy* and *Canada Choice*, which can be found on products that are imported in bulk and simply packaged in Canada. Table filière des légumes de transformation complained, “Currently, a frozen food product imported in bulk and repackaged in Canada with a country-of-origin label, for example *Product of Spain*, must also carry a *Canada Fancy*, *Canada Choice*, or similar label. The use of the term ‘Canada’ can lead consumers astray and give them the impression that they are buying a Canadian product. It takes a close examination of the label to discover that nothing could be farther from the truth.”

Québec food products that are clearly labeled as such are the exception rather than the rule, despite the fact that there has been broad consensus for many years in favor of the labeling of Québec products.

Many surveys indicate that if consumers were well informed about where food products are produced, they would choose Québec products more often. These surveys do not predict actual consumer behavior, however, because of consumers' tendency to buy at the lowest price. Nevertheless, consumers have the right to know where their food is coming from, and it is surprising that they must make such an effort to get the most basic information on this subject.

In 1996 MAPAQ helped set up Aliments du Québec in partnership with UPA and Centre de promotion de l'industrie agricole et alimentaire du Québec. Aliments du Québec receives \$400,000 per year—30% of its budget—from the government. We cannot expect miracles, however, from an organization that has a province-wide mandate to promote, identify, and monitor labeling yet has only two or three permanent employees together with a network of volunteers. More than 10 years after the creation of Aliments du Québec, few Québec products carry its label. Nevertheless, the required mechanisms for systematic product labeling are in place. The groundwork Aliments du Québec has laid under difficult circumstances must serve as a basis for a more ambitious undertaking. We must not start from scratch again.

Fédération des chambres de commerce du Québec stressed the importance of making Québec consumers more aware of the Aliments du Québec logo. UPA also stated that “to increase demand for the province's food products, the government should recognize Aliments du Québec as the official label for Québec products and should give this organization the resources it needs to do its work...”

Last December, MAPAQ released his *Strategy for Increasing Sales of Québec Food Products on the Domestic Market*, to which the government intends to devote \$14 million over three years. One aspect of the strategy concerns the identification of Québec products in partnership with Aliments du Québec, who will *manage a database on Québec products, make the information in the database available to distributors, and promote the **Aliments du Québec** label.*

Processors would probably benefit the most from clear labeling of Québec products, since they are the ones who bring more than 70% of Québec's agricultural products to market. If we want Quebecers to choose Québec products over imported ones, as they say they will, they must be able to distinguish between them.

Distributors should themselves indicate country of origin on their private labels and should actively promote broader use of the Aliments du Québec label. Processors and distributors should show leadership in the management of Aliments du Québec and actively encourage the promotion and use of the Aliments du Québec label, in cooperation with the government and other players in the agrifood chain.

Recommendation

Consequently, Commission sur l'avenir de l'agriculture et de l'agroalimentaire québécois recommends

- 16.** That the Québec government help create the conditions for increasing the leverage effect of food distribution on the development and diversification of agricultural production and food processing by adopting the following measures:
- Support the development of short food distribution channels, particularly by updating regulations on marketing practices and agricultural land use and by encouraging the promotion of these channels
 - Through MAPAQ and in association with the Canadian Council of Grocery Distributors, nonfood stores, and suppliers of hotels, restaurants, and institutions, develop tools for monitoring the food-buying habits of Quebecers in various types of retail stores and use this information to analyze consumer wants and expectations
 - In collaboration with schools, daycare centers, hospitals, nursing homes, and detention centers, implement, as a key component of government food and nutrition strategies, food procurement policies that contribute to healthy eating and also respect inter-provincial trade regulations
 - Clearly indicate to Société des alcools du Québec that it should collaborate with Québec wine and spirits producers and ensure adequate promotion of Québec wines and spirits
 - Through MAPAQ, provide an annual matching grant of \$2 million to Aliments Québec for \$6 million in contributions from farmers, distributors, and processors and overhaul the organization and management of Aliments du Québec with the goal of having all Québec products on the retail market carry the Aliments du Québec label within three years.

Human Resource Training and Development



7

Over the last few decades, agriculture and agrifood have entered into the knowledge economy. Jobs have become more complex, and access to these jobs calls for extensive and diverse vocational and technical skills. The sector is supported by companies, institutions, and networks specializing in research, innovation, and technology and skill transfer.

WORKER QUALIFICATIONS

Quebec's agriculture and agrifood sector and its distribution networks are responsible for over 12% of the jobs in the province. It is one of the only economic sectors present in all regions.

Table 15 presents data on agriculture and agrifood workers.

Table 15 | **WORKFORCE IN THE AGRICULTURE AND AGRIFOOD SECTOR, 2007**

	Number of jobs	Share of sector total
Agricultural production	58,918*	12.6%
Processing (including tobacco)	69,667	14.9%
Distribution	157,568	33.8%
Food service	180,040	38.7%
TOTAL	466,198	100.0%

* Hired workers only.

Source: STATISTICS CANADA, *Survey of Employment, Payrolls and Hours and Labour Force Survey*, CANSIM tables 281-0023 and 282-0011, 2007

Farmers employ about 59,000 workers outside the farm family. About 80% of these are seasonal workers. From 1992 to 2003, horticultural jobs increased by 10% (26,243 to 29,230). Over the entire agricultural sector, close to 8,000 workers are employed full time and almost 2,500 part time, year round (in 2003).

For many years, agricultural businesses have had increasing difficulty attracting workers. To alleviate this recruitment problem, workforce co-operatives (known by their French acronym CUMO) have been created in several regions. Given the fragmented nature of agricultural work and the seasonal character of some jobs, forming a group of workers who can be sent to work on a number of farms is an attractive alternative to having one farm hiring them for only short periods. This system allows farmers to collectively recruit workers with skill sets that are compatible with the specific needs of member farms. Co-operatives generally have an administrative structure that makes it easy for them to supervise the workers and to organize their hiring by various farmers.

In their presentation to the Commission, Coopérative d'utilisation de main-d'œuvre agricole de la Côte-du-Sud stated that there are many advantages to this system, one of which is, "the certainty of having qualified, experienced workers at competitive rates. The farm business doesn't have to support a worker full time to take care of sporadic work needs [...] Another advantage is the improvement in farmers' quality of life (with competent workers, they can now take time off)." The Commission cannot but support the development of such cooperatives at a time when recruiting and retaining agricultural workers is increasingly difficult.

There are few reliable statistics on agricultural workers' level of education. Census data from Statistics Canada is generally used. The most recent information available is from the 2001 census; 2006 data will only appear in spring 2008.

Table 16**LEVEL OF EDUCATION BY ECONOMIC SECTOR IN QUÉBEC, 2001**

Sector	No degree	High school leaving certificate	Vocational or technical diploma or equivalent	University degree
Québec average	19.6%	25.8%	35.9%	8.7%
Farming	40.9%	26.8%	28.6%	3.6%
Mining and fuels	31.0%	21.4%	38.7%	9.0%
Construction	29.9%	25.3%	39.6%	5.2%
Manufacturing	28.9%	26.9%	34.2%	9.9%

Source: STATISTICS CANADA, 2001 Census, compiled by Centre d'études sur l'emploi et les technologies (CETECH)

In 2001, of the population over 15, farmers and agricultural workers were among the least educated, as Table 16 illustrates.

Various studies reveal, however, that the level of education and vocational qualification of farmers and agricultural workers is rising. Without doubt, the agricultural class, like Québec society as a whole, is better educated and better trained than ever before. Those working in agriculture, however, come from further behind and seem to advance a little more slowly. Table 17, which summarizes the changes in farmers' level of education in Québec and Canada, reflects this situation.

THE SKILLS IMPERATIVE

After years of modernization, Québec agriculture has profoundly changed. Cropping and livestock production techniques require scientific knowledge that is increasingly sophisticated. Farmers are business people who own and manage farms whose value often surpasses that of SMEs in many other economic sectors. Agriculture has become an integrated player in trade and a pivotal presence in the life of Quebecers. Agricultural production, considered until recently as a private and strictly rural activity, is today seen as a societal issue. Farmers are at once manual workers, versatile technicians, managers, and entrepreneurs who work in a pivotal economic sector in a rapidly changing society.

Table 17**FARMER LEVEL OF EDUCATION IN QUÉBEC AND CANADA 1991-2001**

Level of education	Québec 1991	Canada 1991	Québec 2001	Canada 2001
Lower than 9th grade (%)	28.6	19.8	18.4	12.3
9th to 13th grade (%)	46.2	48.2	44.4	47.7
Postsecondary and university (%)	25.2	31.9	37.2	40.0

Source: STATISTICS CANADA, 1991 and 2001 Census

The processing and distribution sectors have gone through the same transformation. They evolved by investing heavily in technology, productivity, the highest standards of quality, and efficiency throughout the supply chain. Here too, technology has become all-important in the workplace, and society's expectations have risen.

During the Commission's national hearings, Union des producteurs agricoles (UPA) stressed that "farmers work in a constantly changing world. They need a solid background (general and specialized), but they rely on continuing education to update their production and management methods. The future of the agricultural sector rests in its ability to acquire, renew, disseminate, and share knowledge."

For its part, the cooperative Agropur explained, “The competitiveness of a business depends more and more on the ability of its workforce to adapt to new equipment, new technology, highly technical products, and changes in the business environment. This reality, together with the scarcity of workers in certain sectors, underscores the importance of having employees with a good general academic background, and makes it imperative for the business to offer on-the-job training and to have an effective succession plan in place.”

Jobs in agriculture and agrifood, like in almost all other sectors, have become much more sophisticated over time, and are constantly evolving. Access to many occupations in the sector requires an increasingly high level of training that must be updated regularly.

Knowledge is not just an accumulation of facts. It is also the ability to grasp the dynamics of one’s field of endeavor and the major trends driving change in society. It requires the capacity to anticipate change, manage stress, and supervise employees. Knowledge is also the ability to communicate with colleagues in one’s field and with one’s fellow citizens in order to be actively involved in the community. We are truly in a knowledge-based economy.

The challenges facing this sector require a critical examination of workforce qualifications and the availability of initial training and continuing education. We must consider both access to training and the degree to which it prepares workers for the current and future demands of the agriculture and agrifood sector.

It is primarily through education and training that modern Québec has emerged. Here, like everywhere in the world, unskilled jobs are rapidly disappearing. Even traditional trades (baking, carpentry, fishing) are turning into occupations whose main entry criterion is competence. Our future, as well as our standard of living, depends more and more on our capacity to thrive in a knowledge-based universe.

CURRENTLY AVAILABLE TRAINING

1. How well initial training prepares agricultural workers

Farmers are therefore using more and more off-farm laborers, who ideally should have specific work skills that are regularly updated. This is far from the case, however.

A survey in 2003 by the agricultural labor sectoral committee revealed that 38% of workers in greenhouses, 41% on pig farms, and 37.2% in dairy production had no diploma. In comparison, of the total population of workers 15 and over in Québec, only 19% do not have a diploma, half that of the agrifood sector.

The main way of acquiring basic training in agriculture is to get a *vocational diploma*. These two-year programs (930 to 1,245 hours) require Secondary 3 or 4 for admission. They are offered in the school boards’ vocational training centers and cover livestock production (dairy, swine, and beef), ornamental horticulture and landscaping, arboriculture, floristry, and crop growing.

The vocational diploma is to train agricultural workers, salaried employees called “farming assistants.” Ideally, a clear majority of this class of agricultural worker should have received this diploma, after going through basic training.

2. College-level training

Three-year college-level technical training is designed for future farmers and technicians. In the agricultural sector, these programs are offered by Institut de technologie agroalimentaire (ITA), and depending on the discipline, by a dozen or so cegeps. They lead to a *diploma of collegial studies* (DCS), the highest level of technical qualification.

It is possible to receive part of the training covered by the DCS through a program leading to an ACS, or *attestation of collegial studies*. It comprises 300 to 1,150 hours (one year or less) focusing on the technical aspects in the DCS. Thirty-odd ACSs are available, mainly in cegeps, although not always on a continuous basis (the courses are available for one to three years, then terminated). Between 50 and 125 ACSs are conferred every year, mostly in various types of agricultural production.

3. University training

Two universities in Québec have undergraduate and graduate programs in agriculture and agricultural and environmental studies, namely Université Laval and McGill University. Université de Montréal trains veterinarians, nutritionists, and dietitians. Table 18 illustrates the evolution in the number of undergraduate degrees at the three universities.

Knowledge transfer is done primarily by university graduates. More than 80% of those working in agricultural extension in the province have a university diploma. As the list of programs indicates, university graduates are called upon to occupy strategic posts in private companies, cooperatives, farmers unions, and public institutions in a very broad range of scientific, environmental, economic, and social fields. Veterinarians play a decisive role in public and private animal health and food safety programs. University programs in agriculture and related sciences are also the training grounds for researchers and research professionals.

Table 18

NUMBER OF UNDERGRADUATES IN AGRICULTURE AND RELATED PROGRAMS AT UNIVERSITÉ LAVAL, MCGILL UNIVERSITY, AND UNIVERSITÉ DE MONTRÉAL, 1994, 1998, 2002, AND 2006

Program⁶⁸	1994	1998	2002	2006
Agrology/Animal science/Plant science	121	136	127	137
Agricultural economics and management	28	48	49	27
Rural economics (major)	1	2	–	–
Agroenvironmental engineering/Environmental sciences/ Agricultural engineering (bio-resource)	55	56	47	53
Food engineering	–	4	12	3
Veterinary medicine	68	72	77	84
Agricultural sciences	13	6	4	13
Nutritional sciences	122	128	111	119
Food science and technology/Food technology	32	48	49	32

Sources: Université Laval, Bureau du registraire; McGill University, Admissions, Recruitment and Registrar's Office; Université de Montréal, Bureau du registraire, École de médecine vétérinaire.

68. The Bio-agronomie program became Agronomie in 1995 at Université Laval.

Agro-économie became Économie et gestion agroalimentaires in 1996 at Université Laval.

Génie rural became Génie agroenvironnemental in 1998 at Université Laval.

Only Université de Montréal offers a program in veterinary medicine.

The program called Agricultural Sciences mentioned in the table is exclusive to McGill University.

The Nutritional Sciences program mentioned in the table is offered at McGill University, Université Laval, and Université de Montréal.

Over the last decade, the number of graduates from agricultural and related faculties has remained constant on the whole. It is essential, however, that they attract more students because the agrifood sector will need an increasing number of professionals and researchers in the future.

The situation with most cause for concern is that of veterinarians. The number of graduates is low (84 in 2006) and less than half work in agriculture because veterinarians are increasingly attracted to the field of small animal medicine. Moreover, according to *Ordre des médecins vétérinaires*, more than 50% of its members working in agriculture switch to small animals within the first five years. Yet veterinarians are needed more than ever before to respond to increasing public health concerns, to monitor antibiotics and pathogens, prevent zoonoses (animal diseases transmittable to humans), inspect imported food, and more.

4. Continuing education

The need for lifelong learning is a characteristic of developed societies. Jobs evolve, and the job market is becoming more open and fluid. Technology is ubiquitous, and skills must be constantly renewed.

Access to continuing education has improved considerably in recent years. Employers with payrolls over \$1 million are required to spend 1% of their payroll expenditures on training, and employee development is included in an increasing number of collective agreements. Public and private institutions offer a very great diversity of training activities, and workers recognize that improving their skills is often the gateway to improving their economic and social standing.

Admittedly, problems remain—travel distance to class, difficulties getting time off work to train, lack of time, lack of financing, replacing income during training, adapting courses to the specific needs of adults or to their sector of activity, and so on. Continuing education has nevertheless become an integral part of human resource management and a key to business success.

The agriculture and agrifood sector has similar needs and challenges. To make training available to a widely dispersed clientele, the government established the Agricultural Training Support Plan in 1981 with the help of UPA. This initiative, which has no equivalent in any other sector or province, brings together the regional cooperatives and agricultural educators present in most regions to define training needs, engage farmers, structure the demand for courses, establish ties with teaching institutions, and partly finance the training. A report on the plan is published annually, and in 2005 a joint, in-depth evaluation was done by three Québec ministries.

The main conclusions from the reports and the evaluation can be summarized as follows:

- Most of the training is of a technical nature and generally consists of short courses (6 to 30 hours) on production issues and a broad range of subjects. The number of longer training programs (notably those that lead to an ACS) is constantly decreasing, these being replaced by more specialized courses.
- The training is not related to the regular vocational and technical study programs so it does not help farmers and agricultural and food processing workers advance toward a diploma, or very little so. Participants in these training sessions do not consider an increase in their level of education and qualifications a priority.
- Despite all the efforts made, the number of participants and the number of hours spent in these courses are leveling out or only slightly increasing.
- In recent years, there has been increasing interest in courses on local specialty products, organic agriculture, traditional processing methods, and the environmental aspects of agriculture.
- Although training in farm business management is recognized as a priority, it is rarely available, due to a lack of participants.
- The Agricultural Training Support Plan also addresses the needs of the processing sector. Over 2005–2006, food processing (including maple products) represented 30% of the courses in the plan.

Not all agricultural training activities are organized through the support plan, but it is the principal framework, and this evaluation undoubtedly gives a good idea of the current state of training in the sector. ITA cooperates with the plan by offering a selection of specialized training courses in addition to its regular program. It has drawn the same conclusions about continuing education, namely enrollment is leveling off and even decreasing, few courses lead to a diploma, there is a trend toward short courses, and so on.

The universities, which are important training resources, note the low level of participation on the part of professionals in continuing education activities other than symposiums and conferences.

This phenomenon has increased since MAPAQ abandoned its advisory role to farmers. In the new extension structures, consultants have more and more difficulty finding the time and the financing to periodically update their scientific and technical knowledge. Agricultural practices and cropping methods have evolved tremendously in recent years, directly affecting the agrology, agroenvironment, and farm management fields. It poses the question whether agricultural extension agents trained ten years or more ago have been able to update their skills to keep up with these changes.

In its presentation to the Commission, Ordre des agronomes du Québec stated that “a purely optional 150 hours of training over three years” is suggested to its members in compliance with the Order’s continuing education policy. The Order believes that this is insufficient. “In the light of the rapid changes and increasing complexity of agrologic practices over recent years, Ordre des agronomes du Québec recognizes the need to move towards a policy of mandatory continuing education.”

THE QUALITY OF TRAINING

It is always difficult to evaluate programs given the lack of objective criteria. The Commission met many people from a variety of educational organizations and was impressed by the strength of educators' commitment to improving the skills of agricultural and agrifood workers. At the public hearings, the Commission also received compelling presentations on the quality of the training available.

1. Updating programs

One of the main criteria for judging the quality of training is the degree to which the programs are adapted to current employment realities in the sector. Because jobs are becoming more and more sophisticated, it is essential that study programs be periodically updated to keep up with changes in skill requirements.

Yet it has been a long time since vocational and technical study programs currently available in agriculture and agrifood have been overhauled, apart from the *Gestion et exploitation d'entreprise agricole* (GEEA) program (Managing and Running an Agricultural Enterprise), in 2000. The most recent updates of the other programs go back to 1995, and even 1993, more than 12 years ago. Training in ornamental horticulture is still based on skill requirements established in 1989. Available courses do not equip the students with the skills they need to face current and future challenges. Although instructors often go beyond the minimum requirements laid out in the course descriptions, this depends on the individual and on personal initiative and cannot replace standard course content that guarantees the acquisition of specific skills.

Donald Millaire, director of Centre de formation professionnelle des Moissons de la Montérégie-Ouest, and Benoît Desjardins, director of Centre de formation professionnelle Mont-Joli-Mitis du Bas-Saint-Laurent, confirmed to the Commission that "The programs need updating, and the process of revising existing programs and creating new ones is long and hard."

Other witnesses at the hearings raised the question of management training, noting that a farm is a business, an SME. More than 80% of young farmers earn incomes of more than \$100,000 a year within the first year of becoming established. The average asset value of family farms was \$1.4 million in 2006.

To operate a business of this size, a range of management skills is necessary. This is not a type of knowledge that can be learned on the job.

If young farmers have not acquired the basic training required to understand and confront the management issues of an SME of this size, they will significantly handicap their abilities for years and adversely affect the farm's productivity and profitability as well as the farmer's capacity to innovate.

The dean of the Faculty of Agricultural and Environmental Sciences, Dr. Chandra Madramootoo, expressed this need in the following terms: "Entrepreneurship, experience in making business plans, costing new products for market, and cost-benefit analyses of new technologies are essential for today's producers⁶⁹."

69. C. Madramootoo, "Future challenges of education and research for a safe and secure food supply in Quebec," 2007, Faculty of Agricultural and Environmental Sciences, McGill University. Brief to CAAAQ.

At ITA, particular attention is paid to training students in management skills, especially in the GEEA program. Students study the various management issues involved in running a business in their field of interest. During the last year of the program, the students must develop their own business plans and integrate various strategic planning and management components. Cegeps also teach basic concepts of accounting, budget preparation, economics, and day-to-day running of an agricultural business as well as human resource management in the GEEA program.

Nevertheless, there seems to be very little room for analysis of the economic environment in courses at cegeps and ITA (apart from the normal marketing mechanisms of the joint plans). Moreover, as we have seen, very little is available in the way of management training in the continuing education programs. It is important to remember that in future, farmers will be called upon by their communities to use their expertise, entrepreneurship, and vision to actively develop strategies and tools for encouraging dynamic land use and the revitalization of rural communities. This civic and social role will require discipline as well as management and analytical skills.

Ministère de l'Éducation, du Loisir et du Sport (MELS) has developed a useful framework for updating vocational and technical training study programs. The information collected during the process gives a precise idea of how the revision of each program has progressed. At the university level, program updating has no such framework—it is left up to the discretion of the universities and faculties.

At the hearings, Ordre des agronomes du Québec recognized the necessity “for an overhaul of agriculture programs at the universities, especially in terms of addressing social concerns and keeping up with the development of sustainable agriculture.” The Order considers that the renewal process could be completed by 2010. The Commission invites the agriculture faculties to accelerate program updating given the rapid changes in the profession, especially as regards social issues in agriculture, the information needs of the public, and the fact that agrologists work more and more as consultants and have an increasingly diverse and fragmented clientele. Revising the programs should raise certain skill levels for agrologists and differentiate them more clearly from technicians, thus easing tensions between the two groups. Given the paucity of professionals in the sector, there is no room for intergroup rivalries.

2. Dispersed availability of vocational and technical training and the disparity of resources among institutions

The fact that initial training in the agrifood sector is highly dispersed is illustrated by the number of teaching establishments offering study programs:

- 24 vocational training centers in 21 school boards
- 13 cegeps and 1 private college
- ITA—the leading vocational and technical training institution—with its three campuses
- 82 permits to offer a ministerial study program at secondary school level and 28 at the college level—these permits authorize a teaching establishment to give certain courses, rather than entire programs, which increases the dispersal of sites and resources for agricultural training

All these resources together produced 435 graduates in 2005 (of which 153 graduated from ITA).

All these disciplines require practical training, meaning laboratories, specialized workshops, farms, and plant schools. This is an expensive form of education. Jean-Paul Laforest, dean of the Faculty of Agricultural and Food Sciences at Université Laval, reminded the Commission, “The costs involved in teaching agriculture and agrifood are much higher than in comparable pure and applied science disciplines, due to the need for specialized infrastructure.”

To ensure a high quality of education, resources must be rationalized, particularly in the current context of shrinking public finances and decreasing numbers of students in vocational and technical programs.

To maintain access to training in the regions, there must be better coordination, if not a rationalization of learning establishments. It just makes sense.

One thing is patently obvious—there is a great disparity of resources among training establishments, a fact that many witnesses brought up. Two different worlds exist. On the one hand is ITA with its three campuses and its specialized centers, its 300 employees, 205 teachers, 7 technical programs, and some 1,000 students, its farms and plant schools, and its international programs, and on the other are the dozen school boards and cegeps, which often have had dramatic decreases in student numbers and which have teams of five to eight teachers, and facilities that generally have received no investment in recent years. Rare is the school board or cegep that has a school farm.

Édith Malouin, a young farmer from Île-d’Orléans who studied both at ITA and at a cegep, made a statement that gives cause for concern: “Both are public institutions but they’re financed differently, and this has an enormous impact on the quality of the facilities available to students. ITA in Saint-Hyacinthe has wonderful, convenient, facilities for students, as well as a functioning farm. In comparison, there is a flagrant lack of financing of cegeps offering courses in agriculture, to the detriment of young farmer training.”

Resources are spread too thin among the numerous establishments, resources that in many cases will become increasingly rare as teachers retire and the number of students decreases.

Between 1999 and 2006, the number of vocational diplomas awarded in agriculture-related programs dropped from 1,108 to 705. At the college level, the number of graduates from all programs remained at 550 to 600 over the same period, despite annual fluctuations. This instability, especially in the technical disciplines, is not exclusive to agriculture. Throughout the technical training network, enrollment dropped from 90,457 students in 1996–1997 to 78,218 in 2005–2006, a decrease of 14%. In the secondary school vocational programs, on the other hand, the total number of graduates in all disciplines rose by 22%, while it dropped by 36% in agrifood-related disciplines.

We recognize that elected officials and leaders in the regions feel it important to preserve agricultural programs in their areas. It is true that it is important to keep a certain level of vocational and technical training in Québec’s principal regions. Nevertheless, maintaining entire programs can affect the quality of training in some regions, and is also financially untenable.

The Kamouraska local development center (CLD) discussed the “trouble recruiting new students, the problems retaining teaching staff, as well as budgetary constraints” on college training. According to the CLD, “the dispersion of resources and financial means does not serve the interests of the agrifood sector. Why do two ministries in the same government compete in the area of agricultural training? Why does the Québec government support ITA’s leadership and at the same time develop a parallel network?”

This dispersion is exacerbated by the lack of real collaboration among teaching establishments. Although mechanisms for cooperation among school boards, cegeps and ITA exist on paper, the reality is quite another thing. With students and resources rare, each establishment is in competition with the others in terms of the courses they offer. However, if we want to maintain a high quality of training in the regions, these establishments must cooperate, by sharing teachers, courses, programs, and facilities. If specialized resources essential to training exist in some regions, they must also be made available to regions that lack them. It is crucial to move beyond the rigidities of the system.

3. ITA’s leadership in vocational and technical training

Clearly, ITA has the teachers, specialists, and infrastructure to boost vocational and technical training in the regions. This could be done either by lending resources (initial training or continuing education) or by offering sessions or internships of varying lengths to secondary school or cegep students enrolled elsewhere.

ITA is a large organization that is already structured as a network. It deserves the respect and pride with which it is viewed by the agriculture and agrifood sector and by Québec as a whole.

Despite the fact that it undeniably has the capacity, ITA does not always exercise leadership in training and knowledge transfer as much as it could. We must exploit the strengths of this important institution more fully.

To accomplish this, the organizational status of ITA must be revised. Its direct link with MAPAQ does it a disservice. Like Institut de tourisme et d’hôtellerie du Québec, ITA should be more independent and should be managed by a board that is in direct contact with the realities of the industry it serves. Given its expertise and resources, ITA should be charged with coordinating vocational and technical training in the agriculture and agrifood sector. The current underutilization of the Institute in this regard is a waste of potential that must be rapidly brought to an end.

In this new administrative framework, ITA would report to the Minister of Agriculture, Fisheries and Food. MELS would remain ultimately responsible for vocational and technical training programs and diplomas. The school boards and cegeps would retain their facilities and continue to manage their staff, and they would offer courses in accordance with an annual action plan developed jointly with ITA and approved by MELS. The plan would seek to harmonize and make optimum use of available resources in the regions. MELS would finance these establishments in accordance with the integrated action plan. ITA would be financed by Québec’s Minister of Agriculture, Fisheries and Food, and its budget would be adjusted to take into account its coordination mandate and the possible extension of its training services into the regions.

As we have seen previously, practical work is an important part of the training for jobs in the agriculture and agrifood sector. These programs should emphasize cooperative education, as agriculture is particularly suited to this type of learning.

It would be prohibitively expensive to establish school farms in every school board or cegep. Nevertheless, modern, well-equipped farms specializing in various types of production and managed according to best practices exist in every region of Québec. These “model” farms could serve as sites where young and continuing education students could do internships. They should be accredited by ITA and invited to help train our future farmers, given their professionalism and the quality of their facilities. This would

give a form of official recognition to the exemplary value of their farms and of their management skills. They could welcome vocational and technical training interns on a voluntary basis and also collaborate with research centers in testing agricultural practices or in performing trials. The farmers would be compensated by the government for accepting and supervising the students and for participating in research and development work.

Recommendations

Consequently, Commission sur l’avenir de l’agriculture et de l’agroalimentaire québécois recommends

- 17.** That ITA report directly to the Minister of Agriculture, Fisheries and Food (and not MAPAQ) and be directed by a board appointed by the government comprising representatives from farmer organizations, processing companies, service firms, university faculties in the sector (agrology, veterinary medicine, etc.), ITA professors, those recognized for their expertise in consumer behavior and the environment, as well as deputy ministers from MAPAQ and MELS

Recommendations

- 18.** That in addition to its current mission, Institut de technologie agroalimentaire officially receive the mandate to
- Revise and continuously update all programs in agriculture and agrifood, both vocational and technical, in collaboration with teaching establishments and the competent ministry, with a view to rationalizing the training available, and have these programs approved by the Minister of Education, Recreation and Sports
 - Stress cooperative programs in agriculture and agrifood training
 - Set up and manage an accreditation program for model farms that could serve as research and training sites within the framework of a cooperative program
 - Increase course content in economics, management, and the agroenvironment and broaden training in new market dynamics (differentiated products, production/processing, organic agriculture, production for local and regional markets, niche markets, reserve appellations, and so on)
 - Advise MELS on the coordination and rationalization of initial vocational and technical training in Québec's agricultural regions, while ensuring the quality of and better access to training in the regions
 - Help coordinate continuing education by optimizing the use of facilities and the contribution of members of the various networks in the regions, in collaboration with MELS
 - Facilitate the sharing of staff and equipment among establishments to ensure quality training in the regions
 - Encourage the dissemination of vocational and technical knowledge in the agriculture and agrifood sector

FARMERS: AGRICULTURE PROFESSIONALS

The Commission believes it is crucial that farmers view themselves as agriculture professionals. Such professionalization is essential and meets three main goals:

1. It puts the skills of farmers on par with the technical, entrepreneurial, and social requirements of the profession.
2. It better prepares farmers to deal with changes that alter the exercise of their profession and the sector's socioeconomic environment.
3. It provides a stronger foundation for farmers to participate actively in debates on agricultural issues and development of the agricultural community.

Professionalization also dovetails with social recognition of the profession of farmer. During Commission hearings, numerous farmers wished for greater social appreciation of their profession and work. However, farmers must first improve their own perceptions of themselves. They must explicitly recognize that their profession is very complex and requires a great deal of skill, but that they are quite capable of meeting the technical, economic, and social challenges it imposes.

In other words, farmers must be able to communicate and demonstrate that, through their skills, they occupy an important profession in Québec society and that they are increasingly numerous in doing so.

Despite progress in recent years, we must acknowledge that work remains to be done and put greater focus on skills. Some reforms must therefore be envisioned.

1. Raise eligibility requirements for establishment grants

La Financière agricole du Québec promotes college training, specifically the GEEA program, the only one that qualifies participants for its financial assistance measures. But year in and year out, the institution approves nearly as many people with high school vocational diplomas as those with college diplomas. The situation even seems to be getting worse. In 1998, 26% of establishment grant recipients had secondary training, compared to 39.6% in 2006. As has already been noted, a vocational diploma prepares one to work on a farm, not own a business.

We understand that some in the agricultural sector may fear aggravating succession problems if eligibility criteria for the profession were raised, specifically in terms of schooling and professional training. But doesn't watering down criteria threaten to be even more harmful in the mid to long term?

At a time when agriculture needs leadership, diverse expertise, innovation, and visionary entrepreneurs more than ever, compromising on basic skills can undermine the sector's ability to meet the challenges of tomorrow. The significance of awarding grants and loan guarantees to such a large number of people who are less equipped to serve as owners and managers of a business should not be downplayed. And as has already been mentioned, gaps in basic agricultural training cannot be filled by continuing education. It is true that grants are larger for candidates with college or university training, but the basic problem remains.

Fédération de la relève agricole du Québec notes in this regard, “It is public knowledge that the agricultural sector has been awash in crises for several years [...] We believe that some [of these difficulties] stem from substandard training of farmers. On-farm experience can definitely make up for part of this lack, but initial training is an important tool in the establishment process and provides skills to be a better business manager.”

AGRIcarrières, a sectoral committee on agricultural labor, believes that college provides the minimum level of training needed to manage an agricultural business. The committee said as much during Commission hearings: “The college-level GEEA program is specially designed to meet the basic training needs of future farmers. All our efforts must go towards alerting youth, their parents, the agricultural community, and educators to the importance of meeting this training goal. It is public knowledge that aspiring farmers do not pursue their studies enough beyond the secondary level.”

It is vital that La Financière agricole put future establishment candidates on immediate notice: the number without at least a college diploma in agriculture or equivalent training will drop in the near future and, in the medium term, a DCS will be a minimum condition of eligibility for financial assistance programs. We recommend that this new emphasis on basic skills lead to a restriction on financial assistance and a gradual reduction in grants to candidates without college or university diplomas as well as to a proportional increase in the amount awarded to holders of these diplomas. Fédération de la relève agricole du Québec as well has called on La Financière agricole to strengthen its training incentives: “Such a move would encourage youth to continue their studies at a higher level because only college or university training in agriculture would entitle them to the maximum grant amount.”

Recommendation

Consequently, the Commission recommends

- 19.** That La Financière agricole du Québec gradually tighten training criteria that facilitate access to its establishment grant programs and that, at the end of a five-year transition period, a college diploma in agriculture (or equivalent, relevant training) be considered the minimum level of training in order to receive this financial assistance

2. Design personalized training programs to develop skills befitting an agriculture professional and take concrete steps to promote this training

As noted above, a relatively low number of farmers and agricultural workers take part in continuous education, and this training rarely leads to an official diploma.

Certain problems sometimes prevent workers from participating in training activities (availability, distance, trouble forming groups, cost, etc.). Most farmers cannot take part in training because their full-time duties keep them on the farm. But studies have shown that many of them do not recognize the added value of training or the benefits they could reap from such a personal investment. They believe that their future would not look any better. The director of Centre de formation professionnelle des Moissons has raised the importance of “fighting the prejudices of many farmers, who believe they do not need any training, and driving home the concept of lifelong learning...”

Farmers work in a sector undergoing change and uncertainty, where debates on rural development, food safety, and agricultural productivity and new solutions are being sought. We must therefore promote a culture of lifelong learning, make it a development challenge, and increase participation in qualifying and refresher training.

Farmers must have access to personalized training programs for agriculture professionals. With the minimum training needed being college studies in agriculture or a related discipline, these personalized training programs should do the following to help farmers achieve this:

- Recognize the skills farmers have acquired at school and on the job in order to prevent duplication of knowledge
- Specify the courses to complete to obtain professional status
- Enjoy the backing of the Agricultural Training Support Plan, with learning institutions and ITA doing everything in their power to tailor training to farmers' needs and work schedules
- Provide special ten-year financial assistance to cover most of the expenses associated with continuous learning leading to a diploma or a vocational or technical certificate, including travel expenses and the cost of replacing the farmer or worker during training sessions

Recommendations

Consequently, Commission sur l'avenir de l'agriculture et de l'agroalimentaire québécois recommends

- 20.** That all farmers who do not have the equivalent of a technical training diploma be strongly encouraged to enroll in a personalized training program enabling them to acquire the skills of an agriculture professional and that, to this end

 - ITA design and implement, with the assistance of regional establishments, a system to recognize the on-the-job skills that farmers and agriculture and agrifood workers have acquired
 - ITA develop a continuous learning plan whereby farmers could enroll in a program that fits with their working conditions, imparts the skills needed by an agriculture professional, and leads to a diploma of collegial studies in agriculture or the equivalent
- 21.** That every five years farmers with college diplomas be strongly encouraged to take refresher training, designed and coordinated by ITA in various regions, and that this training be officially recognized
- 22.** That incentives be offered to farmers in order to facilitate continuous learning, notably

 - A special incentive program for farmers and workers enrolled in a training program leading to a diploma that would cover 75% of training-related expenses for the first five years and 50% of expenses for five years thereafter, including travel expenses and the cost of replacing the farmer or worker on the farm
 - The obligation for farmers who ask La Financière agricole to significantly increase their credit or loan guarantee amounts to show that they are qualified agriculture professionals or that they firmly commit to taking steps to achieve this goal under a timeframe agreed upon with La Financière agricole
 - Reduced premiums on some types of agricultural insurance for agriculture professionals and increased premiums for farmers without professional status and who are not enrolled in training programs, because enhancing skills makes for better management and thereby minimizes risks

Table 19**NUMBER OF EMPLOYEES PER PROCESSING SUBSECTOR, 1997 TO 2006**

Subsector (NAICS code*)	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Meat products (3116)	14,496	16,634	15,968	17,956	17,994	18,865	18,678	18,842	19,460	18,190
Bakeries and tortilla (3118)	11,685	11,702	11,697	12,057	12,316	13,572	14,841	14,413	13,630	13,559
Dairy products (3115)	6,672	6,777	6,800	7,608	7,129	7,279	7,449	8,098	8,611	9,108
Beverages and tobacco (3121-3122)	11,517	12,072	10,643	11,559	12,183	12,773	11,374	10,270	8,118	7,297
Other foods (3119)	6,512	7,323	7,236	7,936	7,624	7,700	8,444	8,680	8,760	8,378
Other (3111-3112-3113-3114-3117)	12,699	13,022	12,603	14,067	12,346	12,991	12,767	13,033	13,098	13,135
Total	63,581	67,530	64,947	71,183	69,592	73,180	73,553	73,336	71,677	69,667

*North American Industry Classification System

Source: STATISTICS CANADA, *Monthly Survey of Employment, Payroll and Hours (SEPH)* and *Enquête sur la population active*, CANSIM tables 281-0023 and 282-0011, annualized monthly data

3. Train and develop workers in the processing and distribution sectors

Food processing is Québec's top manufacturing exporter (\$17.9 billion in 2006). The industry employs nearly 70,000 people at a variety of facilities in all regions. Table 19 provides industry employment numbers for the last ten years.

Dairy processing employment has increased (+27% in 10 years) and beverage and tobacco employment has dropped 36%. This movement in opposite directions is no doubt due to consumers taking a greater interest in their health. It can also be explained by the increasing popularity of specialty cheeses.

Though concentrated in the Montréal metropolitan area, food processing companies are found in all regions of Québec. For a number of years now, these companies have had problems hiring and retaining workers. Some kinds of industry jobs are seen as unappealing, i.e., those in slaughterhouses. It is no surprise, then, that youth are less interested in food processing and that workers are older. Employees 45 and over account for 31% of all workers at these companies, compared to 28.8% for the entire manufacturing sector. Though all trades have been affected by worker hiring and retention problems, including of laborers, food processing businesses seem to have been hit harder, especially for positions requiring specialized training.

In terms of wages, food processing employers are not really competitive with businesses in other manufacturing sectors.

Table 20**AVERAGE HOURLY WAGE PER SECTOR OF ACTIVITY, 2006**

Food manufacturing	\$16.40
Metal products manufacturing	\$17.40
Wood products manufacturing	\$16.60
Plastic and rubber products manufacturing	\$18.50
Veneer, plywood, etc. manufacturing	\$17.23
Wood sawing and preservation	\$19.75
Printing and related support operations	\$18.70

Source: STATISTICS CANADA, *Monthly Survey of Employment, Payroll and Hours*

In terms of training, it is surprising to see that, given the economic importance of food processing, very few programs are devoted to it. At the college level, ITA awards some 30 diplomas each year in food processing technology. This number should increase somewhat in the next few years seeing as the La Pocatière campus and Cégep régional de Lanaudière (Joliette campus) were authorized to offer this program starting in 2002. In 2007, both campuses conferred 15 additional diplomas, bringing to 40 the number of new food processing technicians. This progress should be commended, but the industry still needs much greater numbers of people skilled in this field.

Université Laval offers food engineering and food science and technology programs, while McGill University offers a food technology program. In 2006, 35 students successfully completed undergraduate studies in this specialization at Laval and McGill. In addition, in 2006 45 students completed graduate and postgraduate degrees from the two universities in food processing disciplines.

Businesses in the sector require a range of specialists with professional and technical training: mechanics, electromechanics, electronics technicians, stationary machine operators, and process engineers. Most of these occupations in the physical sciences, regardless of sector, attract very few secondary school and college students, which means labor shortages are just down the road.

Businesses are aware of the problem and have thus taken a greater interest in on-the-job training. Aided by the sectoral food processing labor committee, they are developing *professional standards* and preparing in-house training tools. These initiatives hold out promise, but they cannot make up for the lack of graduates in the job market. The industry is also looking at immigrant labor.

It is clear that businesses must work to enhance the image of food processing if they wish to attract and retain the qualified workers they need in times of labor shortages. They must also seek to improve employee working conditions.

4. Train and develop food distribution workers

In 2006, food wholesaling and retailing accounted for 157,568 jobs at 9,831 businesses. These figures do not take into account employees at stores not specializing in food (Costco, Wal-Mart, etc.). As Table 21 shows, employment is growing constantly in the food distribution sector.

Tableau 21

NUMBER OF FOOD DISTRIBUTION JOBS BY TYPE OF STORE, 1996 TO 2006

Type of food retail	1996	1998	2000	2002	2004	2006
Wholesalers/distributors	21 383	24 013	25 333	29 160	28 354	25 680
Food retail	85 961	90 645	95 144	108 211	122 880	131 888
Total jobs	107 344	114 860	120 477	137 371	151 234	157 568

Source: STATISTICS CANADA, *Monthly Survey on Employment, Payroll and Hours* and *Enquête sur la population active*, CANSIM tables 281-0023 and 282-0011, annualized monthly data

At wholesalers', 8% of employees are part time compared to 49% in retail⁷⁰. Extended store hours are largely responsible for this. The bulk of wholesaling work is done in warehouses, where three types of jobs are found:

- Warehouse clerks and material handlers
- Foremen
- Middle managers

For the most part, warehouse clerks and material handlers have little schooling; most of them have not finished high school, according to a 2001 study by Emploi-Québec. Foremen are slightly more skilled, but only a small minority of them have completed postsecondary studies. Middle managers, who are hired by large companies, have college training and some have university degrees.

The retail sector is characterized by a large number of unskilled jobs, even though numerous positions require vocational and technical skills and even university training. Table 22 outlines the professional qualifications of people in the most representative food distribution jobs.

Numerous public institutions offer—especially through high school vocational programs—training for the trades of pastry chef, baker, butcher, and cook. These institutions, including Institut de tourisme et d'hôtellerie du Québec, each year confer some 1,500 vocational diplomas in these disciplines. At the college level, a one-year attestation of collegial studies (ACS) in retail food department management was offered. It only drew two cohorts, and 30 people obtained this professional attestation. The ACS certificate has since been dropped for lack of applicants.

It is clear that the number of high school graduates can only meet part of the demand for skilled food distribution workers. The industry also has real difficulty attracting youth to programs of study that lead to in-demand jobs and is struggling with high worker turnover.

AGÉCO Group, which conducted a large study on labor needs, noted, "Food retail is no longer seen as a career and no longer attracts youth as a career choice. We have noticed a general labor shortage and a drop in training of food retail workers, with this loss of skill being more pronounced in skilled trades (butcher, fishmonger, baker, cook, pastry chef). These trades are the most crucial, given the low number of experienced employees with relevant schooling⁷¹."

Table 22 | LEVEL OF EDUCATION OF RETAIL FOOD WORKERS BY OCCUPATION, 2005

	No high school diploma	Secondary studies completed	Partial postsecondary studies	Postsecondary certificate or diploma	University certificate or degree
Retail Manager	13.8%	17.2%	-	28.2%	30.6%
Retail Supervisor	14.6%	22.4%	-	44.8%	-
Retail Clerk/Sales Rep	16.9%	31.7%	21.1%	22.5%	-
Cashier	28.7%	22.9%	22.6%	21.0%	4.8%
Butcher, Wholesale and Retail	19.6%	18.9%	-	41.9%	-
Grocery Clerk and Shelf Stocker	40.8%	19.6%	18.7%	20.0%	-

Source: AGÉCO GROUP, *Répartition de la population active dans les magasins d'alimentation, selon l'occupation et le niveau de scolarité*, Québec City, in thousands of people

70. According to data from the 2001 Survey by STATISTICS CANADA

71. AGÉCO GROUP, *Entre la nostalgie Steinberg et la Génération Y, un commerce de l'alimentation en quête d'identité*, 2006

5. Train and develop food service workers

The food service sector had over 16,000 establishments and employed 180,000 people in 2006, compared to 148,000 in 1996.

Restaurants and drinking places are small businesses. While 45% of them have fewer than five employees, only 16% have 20 or more. A 2004 study by Conseil québécois des ressources humaines en tourisme, sectoral labor committee, found the following:

- Fifty-nine percent of employees are women.
- Workers are particularly young: 29% of cooks, 55% of managers, 36% of bar staff, and 35% of food and drink servers are under 25.
- Only a third of managers, wait staff, and kitchen staff have received job-related training.
- The vast majority of restaurant owners have over ten years of experience in the field. Fifty-nine percent have no formal training, having learned on the job.

There are various study programs for food service trades and professions. The following high school vocational training programs are available in most regions of Québec: institutional cooking, pastry chef, butcher, baker, fishmonger, hotel reception, and food services. College programs include food service establishment management and hotel management techniques.

To round out available training, Institut de tourisme et d'hôtellerie du Québec offers high school, college, and university training programs. The Institute offers several specialized courses at the secondary or college level, including Italian cooking, wine stewardship, restaurant management, and international hotel management. At the university level, the Institute offers a certificate and bachelor's degree in tourism and hotel management. It also partners with businesses to provide college training programs known as *ITHQ Signature Programs*, such as the event and convention planning program.

Tables 23 and 24 illustrate the number of graduates from various secondary and college institutions in recent years.

Table 23

NUMBER OF GRADUATES FROM SELECT SECONDARY PROGRAMS AT PUBLIC AND PRIVATE LEARNING INSTITUTIONS, 2000 TO 2007

	2000	2002	2004	2006	2007
Retail butcher	252	196	195	195	188
Baker	-	35	36	52	30
Fishmonger's assistant	-	-	1	1	-
Institutional cooking	1092	972	944	987	669
Pastry chef	346	239	278	303	214
Hotel reception	202	142	91	93	125
Food services	418	330	323	307	229
Total	2,310	1,914	1,868	1,938	1,455

Source: MINISTÈRE DE L'ÉDUCATION, DU LOISIR ET DU SPORT, DRSI, Entrepôt de données ministériel (EDM) at October 15, 2007

Table 24

NUMBER OF COLLEGE GRADUATES BY AREA OF TRAINING, PROGRAM, AND CIVIL YEAR, 2000 TO 2005

Name of program	2000	2001	2002	2003	2004	2005
Food service establishment management	83	65	71	67	77	62
Hotel management techniques	232	205	210	209	201	162
Total	315	270	281	276	278	224

Source: MINISTÈRE DE L'ÉDUCATION, DU LOISIR ET DU SPORT, Higher Education Sector, Systems and Monitoring Branch, in cooperation with the Information and Communications Sector, Research, Statistics, and Statistical Indicators Branch, April 2007

6. Seasonal immigrant labor

Up until the late 1990s, Québec's unemployment rate was over 10%. Because of this, Québec employers did not feel the need to use foreign workers to fill seasonal or temporary positions. Even though the federal government implemented the Seasonal Agricultural Workers Program in 1966, Québec employers did not take advantage of it before 1998.

Québec's market garden farmers, which are concentrated in the Montreal metropolitan area, were among the first to have trouble hiring workers, a problem that worsened as Québec's employment situation improved, in the metropolitan area in particular. They therefore made use of the federal program that allows them to bring in workers from Mexico, Guatemala, and the Caribbean for periods of two to six months. The number of migrant workers increased accordingly, from 1,196 in 1999 to over 5,000 in 2007.

And yet, year after year, we see enough students without summer jobs, unemployed workers, and employment assistance (welfare) recipients able to fill these positions. But experience has shown that this theoretical fit between labor supply and demand does not mean the jobs will really be filled.

We must call a spade a spade: Quebecers turn their noses up at some types of jobs, preferring to prolong their job search instead of going to work in the fields. The employment situation among market garden farmers is a clear illustration of this phenomenon.

Given Québec's demographic outlook, labor shortages will spread to numerous sectors and some types of jobs will simply go unfilled. Many industrialized countries are dealing with this situation and must also use migrant workers from neighboring, less developed countries.

We must do more in the near future. Some jobs that are stabler but are seen as unappealing or too physically demanding are increasingly hard to fill, even though Québec has not yet reached full employment. The Canadian Meat Council presented the problems with slaughterhouse worker hiring and retention to the Commission. Its representative mentioned that in 2006, "The employment minister had authorized a pilot project [to hire 110 temporary foreign workers] in three slaughterhouses in the Bas-Saint-Laurent region." But after several Quebec government departments intervened, stating there was no labor shortage in the region and sector, no temporary foreign workers were hired. In Alberta, there are an estimated 1,500 migrant workers working in slaughterhouses (including the Olymel facility), for periods of up to two years.

It is not the Commission's role to comment on this specific case. However, in the medium term, the use of foreign workers who agree to temporarily fill jobs that Quebecers do not want seems inevitable. This should in no way relieve Québec businesses of their obligation to improve working conditions and salaries in their facilities. It will always be easier and more profitable for these businesses and their communities to hire and retain local workers. Migrant workers are only a stopgap measure, even though they are called on to play an increasingly important role in the foreseeable future.

The use of migrant workers is inevitable, and a basic result is that we must provide transportation, lodging, and working conditions in accordance with our values and mindful of their rights.

Measures have been put in place under the federal program to ensure that the laws governing minimum work and safety conditions are respected. These measures must be maintained and strengthened. As the president of Fédération des travailleurs du Québec noted at Commission hearings, “Because of their employment contract with a single employer and the threat of deportation if they fail to perform, these workers are by definition extremely vulnerable to all forms of blackmail by employers.”

We should not restrict migrants and immigrants to hard, unappealing jobs. Immigrants who choose to live in Québec can obviously aspire to all types of jobs, and it is highly desirable that they take an interest in the agricultural and agri-food sector. To fill skilled jobs in particular, businesses would benefit from immigrant workers with greater education.

Carrefour BLE, supported by Emploi-Québec and Ministère de l’Immigration et des Communautés culturelles, works to train and integrate immigrants in the agricultural sector. During Commission hearings, it deplored the fact that it had to “approach an average of 40 businesses to place a single candidate (an immigrant).” The organization has called for “greater openness and appropriate support measures by institutions and government agencies involved in the agricultural sector—MAPAQ in particular—in order to integrate new immigrants into the Québec agricultural and agrifood sectors.”

Recommendations

Consequently, Commission sur l'avenir de l'agriculture et de l'agroalimentaire québécois recommends

- 23.** That MAPAQ, the ministry responsible for immigration, and job market partners in the agriculture and agrifood sectors develop an immigrant attraction and selection strategy for unskilled and skilled jobs in the sector and that this strategy include temporary workers and permanent immigrants
- 24.** That MAPAQ, in cooperation with Ministère du Travail and the federal government, finalize protective measures for seasonal migrant workers so as to guarantee them lodging, working, and social conditions in accordance with their rights

AGRICULTURAL ADVISORY SERVICES

1. The history of advisory services

The agricultural sector has long benefited from advisory services that have no equivalent in other economic spheres. Support is mainly provided for business management, technical and agroenvironmental issues, and farm succession.

Advisory services were first provided by agricultural societies financed by the Québec government. Since 1913, the ministry responsible for agriculture in Québec has disseminated scientific and technical information to farmers. Until 1968, the ministry was the primary and biggest supplier of such advisory services. In 1968, it established a network of animal pathology laboratories and veterinary teams, which became the foundation of Québec's animal health services. In addition to the advisory services provided directly by the ministry through its local and regional offices, producers could get advice from the Société de financement agricole and Régie des assurances agricoles of the day. In 1996, MAPAQ employed 430 agrologists, engineers, veterinarians, and agricultural technicians, 114 financial consultants, and 150 specialized advisors at Régie des assurances agricoles du Québec.

In the sixties, cooperatives, feed suppliers, and financial institutions started developing advisory services for the goods and services they provided to farmers.

From 1969, the agriculture ministry encouraged the development of networks of extension organizations to disseminate knowledge and orient research priorities to meet the needs expressed by farmers. Thus, Conseil des productions animales du Québec was created in 1969. Later, MAPAQ helped establish numerous specialized councils (on seed production, chemical fertilizers, crop production, food, management, and so on). These specialized councils are now grouped together in one organization—Centre de référence en agriculture et en agroalimentaire du Québec (CRAAQ)—which plays a major role in disseminating knowledge and in supporting agricultural advisors.

At the same time, the agriculture ministry helped set up farm management associations, which provided producer groups with specialized management services. The formula developed over time and then really took off in the eighties. From 1986 to 2004, the number of advisory groups proliferated. They provided expertise in management, agroenvironmental issues, specialized technical areas, and farm startup. In 1998, MAPAQ and farmer representatives felt the need to strengthen ties among the various advisory groups and maximize their presence in the regions. This initiative led to the reorganization of services and the creation of today's Agriconseils networks.

In 2005–2006, there were 145 farmer groups in the Agriconseils network, in the form of clubs or advisory groups. They included 10,259 farm businesses. Farmers help finance these clubs and pay part of the cost of the advisory services they use. The rest of the money is provided by government.

2. The 2006 reform

Revamping of the advisory services was completed in 2006. Fourteen Agriconseils networks were established, one per region. Each of the networks is jointly financed by the Québec government, the federal government, and farmers. The reorganization was formalized in an agreement with UPA. The purpose of the regional services is to respond to the various needs of farm businesses, supplementing the services provided by cooperatives, input suppliers, and financial institutions. Agroenvironmental advisory services are excluded from the agreement until the end of 2008 because of the special way they are financed.

In its brief to the Commission, UPA explained the importance of the advisory services: “The future of agriculture depends on its capacity to acquire, update, disseminate, and share knowledge. The state/producer partnership is crucial for ensuring not only the quality but the universality of these advisory services.”

Each Agriconseils network offers individual and group services. Individual services are provided to a particular farm and generally are concerned with yields and farm management, usually in connection with a plan to expand or diversify production. Collective services are structured to address the needs of a group of farm businesses. Their purpose is to facilitate technical and management knowledge transfer, networking among farms, and comparison of agricultural practices and yield statistics.

Payment of individual services is on a fee-for-service method based on set of clearly identified deliverables. It flows from the Canadian Agricultural Policy Framework implemented in 2004 through which the federal government granted Québec \$20 million over five years for advisory services to farmers (this program is part of the accord between MAPAQ and UPA regarding the Agriconseils networks). This method of financing tends to be disruptive to group projects⁷², particularly the regional farm establishment centers and farm management clubs.

Professionals and technicians who advise farmers and who were first employed by the ministry responsible for agriculture and by public credit and insurance institutions now work in a wide variety of private businesses, cooperatives, nonprofit organizations, and public institutions.

72. There has been a change from financing based on total numbers—ideal for group services—to paying for individual acts.

3. The current situation

Today, there are 3,226 advisors on the front line, meaning they are in direct contact with farmers.

They are divided up as follows:

- 1,495 advisors working in businesses selling either products or services (caisses populaires, banks, fertilizer and animal feed manufacturers)
- 902 private consultants (engineers, veterinarians, management consultants, technical and accounting services, and so on)
- 218 consultants associated with farmer groups
- 300 agroenvironment consultants working within a network of 83 production clubs
- 311 advisors employed by La Financière agricole du Québec

MAPAQ provides secondary services, namely those provided to the advisors themselves. In addition, it tries to maintain expertise in particular fields. This is especially important for certain types of production that do not have a critical mass and that are widely dispersed over a vast territory, making it impossible to establish private advisory services. This is particularly the case for apiculture, which despite the importance of bees in agriculture, remains a sector that receives very little technical support.

Since 1995, MAPAQ has refocused its attention on so-called collective activities associated with sustainable resource management (adoption of environmentally friendly practices) and with the economic development of the agricultural sector (development or diversification of a type of production, support and development of agrologic expertise for new, emerging, or niche productions). The number of MAPAQ employees associated with this function is estimated at 320. With employees retiring and the government policy of replacing only one civil servant in two, we wonder how well MAPAQ will be able to keep up these secondary services.

Other organizations help train and give technical and logistical support to advisors: universities; ITA and the other training centers; staff at research, expertise, and knowledge transfer centers; Association québécoise des industries de nutrition animale et céréalière; government veterinarians; cooperatives; and UPA's specialized federations. They can also count on federal government advisors, particularly those at Farm Credit Canada.

4. Concerns about advisory services

Advisory services were reorganized only recently. This has brought changes, for advisors as well as farmers.

The advisors are called upon to provide more specific services, to bill accordingly, and to behave more and more like private consultants. As business owners, farmers are encouraged to hire professionals for short and long term services and to pay them accordingly (although a substantial part of the tab is picked up by government). All this requires a period of adjustment for everyone, and it will take time.

In its brief to the Commission, Ordre des agronomes du Québec clearly explained how the new system of delivering advisory services affects its members: "This new approach means that agrologists must convince farmers of the value added by the services they provide. [...] They must demonstrate their knowledge and not just promote compliance with environmental regulations. Agrologists could also be required to develop more specialized expertise in future. This change must be well managed if we want to preserve the benefits of the professional relationship that has always existed between farmers and 'their' agrologists."

One of the anxieties expressed at the hearings concerned the future of the **group formula**. Producers who group together to collectively hire one or several advisors have often greatly benefited from the process. This was underscored by Fédération des groupes-conseils agricoles du Québec: “We have often seen relationships being forged and networking being done in our groups to the point where new projects are created, and we have seen members support each other in difficult times. There is a very human side to this concept. It is a way of sharing and of meeting people who share the same reality. We are convinced that it breaks down isolation.” We must ensure that the fee-for-service system, which is the basic model for current advisory services, fits the needs of these farmer groups, which have proved their worth. After all, businesses are encouraged to group together in other economic sectors.

The other apprehension expressed about the reform of advisory services concerned their **capacity to respond to the global needs** of a farm business. Fédération des services-conseils agricoles du Québec expressed these needs in the following terms: “It is important to have a long term vision for the development of one’s business. We encourage everyone we work with to do strategic planning at least once every five years, or as needed, and in the interval to measure their strategic plan’s progress annually. This is a good way to avoid impulse decisions and chaotic development of the farm business. In the process, farmers develop a holistic vision of all aspects of their business.”

Many witnesses deplored the amount of red tape in the federal program and the rigidity of its regulations. Excessive importance appears to be accorded the administrative aspects of the exercise to the detriment of personalized advisory services to the farmer, and that it is difficult to extend the management advice beyond one year. We are concerned that the fee-for-service system leads only to ad hoc intervention that does not enable advisors to make a global, recurrent analysis of a business’s productivity, financing, and human resource management needs. Strategic planning activities should be clearly recognized as eligible for financial aid.

In the same way, **multidisciplinary services**, such as those provided by regional farm establishments centers (called CRÉAs), have difficulty fitting into the new organizational model. CRÉAs specialize in farm succession, which requires a multidisciplinary approach. They have also acquired special expertise in supporting farmers through the development phases following the transfer of a farm. Other advisory services provide this type of expertise, but CRÉAs have the advantage of focusing on the human aspects of farm succession and farm business development. CRÉAs have been weakened and have declined in number from nine to four. Given the complexity of the farm succession process and of the problems young farmers face, it is essential to preserve this expertise as well as the unique way in which CRÉAs help producers.

In a brief to the Commission, farm succession advisors and the advisory committee of Québec CRÉAs mentioned that one of the major issues is “the loss of CRÉA expertise in supporting farm succession, and the risk of losing Québec’s agricultural expertise at a time when farm succession has been identified as a top priority and the needs are urgent. [...] Moreover, some CRÉAs owe their very survival to the volunteer work of their directors in managing these organizations and the very great flexibility of their staff (salaries that are paid late, heavy workloads).”

While inviting CRÉAs to take advantage of the advisory services’ new organizational mode, MAPAQ must give these organizations basic financing so they can maintain their group services to producers and to young farmers:

“In addition to providing personalized services to farm businesses, CRÉAs have a mandate to make all farmers aware of the importance of farm succession planning and the role of each individual in this process.”

For their part, **agroenvironment** advisors have concluded a financing agreement with MAPAQ that expires at the end of 2008. Their work has proven crucial to the adoption of environmentally friendly agricultural practices. As we will see in the chapter on the environment, agroenvironment advisors should be more involved in the enforcement of cross compliance measures. It is important, therefore, that support mechanisms for these advisory groups be in place when the current agreement on financing agroenvironment advisors expires. These mechanisms must take into account the major role the advisors play and the new responsibilities that have implicitly been entrusted to them by the changes in the measures for ensuring compliance with environmental regulations. Obviously, farmers must pay a part of the cost of these agroenvironment advisory services.

Advisors employed by firms providing goods and services represent almost half of the agricultural advisors used by farmers, and they make an important contribution to improving the management and yields of farms.

Some cooperatives, integrated production firms, and input suppliers would like the current subsidy program for advisory services to be replaced by tax credits to farmers. Farmers could call on the advisor of their choice, would pay for the professional services rendered, and would then be eligible for tax credits. Under this system, services provided by a feed supplier's agrologist would be compensated in part by the tax credit. Similarly, these firms want services provided by agrologists or financial or technical advisors in their employ to be treated the same way as those of a private consultant. They point out that a self-employed agrologist and an agrologist employed by an animal feed supplier are both regulated by the same professional body, and therefore the advice they provide should not be biased by their position or their professional relationships.

We feel there is a flaw in this line of reasoning. We do not necessarily suspect that an agrologist employed by a feed supplier would advocate overuse of the firm's products. Such behavior would be illegal, in any case. Input suppliers have simply concluded that in their line, supplying advice to farmers is part of doing business in Québec. It is one of the services their customers expect. If a business did not provide such services, it would probably lose customers. The same reasoning is valid for cooperatives or for integrated companies, which believe that providing advice is a way of attracting more farmers to their enterprise. They manage to charge their clients for these services anyway. So why would the state make them eligible for tax credits? It would never occur to anyone to ask that farm finance advisors in the caisses populaires or banks be subsidized by the government.

We would add that in other sectors, suppliers of goods and services generally provide advice to their customers without this being considered a form of competition with other professionals in the public and private sectors that have the same companies as clients.

5. Advisor training

It is estimated that about 80% of agricultural advisors have a university education and 20% were trained in a specialized college. Their initial training seems to have prepared them well for their professional role, even if at first many of them do not have specific knowledge of the “advisory approach.” On the other hand, access to continuing education continues to pose a problem, it would seem.

Many of those who work in the new advisory services say that they have difficulty finding time and money to periodically update their scientific and technical knowledge. Agricultural practices have changed in recent years, directly affecting the agrologic, agroenvironment, and management fields. Have agrologists who trained ten years or more ago been able to update their knowledge and anticipate and keep up with these changes? This question is all the more pertinent because new needs have arisen: watershed intervention, rural coexistence, biodiversity conservation, development of organic agriculture and emerging productions, production of environmental goods and services, and others.

Some witnesses expressed concern about the lack of refresher training opportunities for agricultural advisors. Given the key role these advisors play, their expertise must always be of the highest standard. Clearly, they do not have the professional motivation to take part in continuing education activities. Financial and time constraints are the main obstacles. We must find ways to eliminate these barriers, especially for private consultants or those working for the regional networks.

Continuing education should be included in the basic cost of advisory services that producers pay for and that the government subsidizes. It is also important that universities enhance their continuing education courses, that course content cover new issues in agriculture, and that this training be available in the regions.

Ordre des agronomes du Québec acknowledged in its presentation to the Commission that optional training for its members is not enough to keep their knowledge up to date in today's context: “Because of the rapid changes and increasing complexity of the practice of agrology in recent years, Ordre des agronomes du Québec has recognized the importance of moving towards a policy of mandatory continuing education, as some other professional orders have chosen to do. How this policy will be implemented will be decided over the coming year.” Given that agrologists are far and away farmers' main advisors, the Commission invites the Order to make this training mandatory as quickly as possible.

Recommendations

Consequently, Commission sur l'avenir de l'agriculture et de l'agroalimentaire québécois recommends

- 25.** That the government encourage greater use of advisory services by farmers, and to do this it should
- Ensure that the mode of financing for advisory services is compatible with their use by farmer groups and with a global approach to the long term needs of farm businesses
 - Ensure that management and entrepreneurship advice is available in all agricultural regions in Québec
 - Take into account the continuing education needs of advisors in the financing of advisory services
 - Provide basic financial support to regional farm establishment centers because of their multidisciplinary approach and the unique services they provide to young farmers
 - Grant financial assistance to agroenvironment advisory services that takes into account their responsibilities, especially with regard to assisting farmers with cross compliance
- 26.** That Ordre des agronomes du Québec make continuing education mandatory for its members and that universities enhance their training activities and make them available in the regions.

Research and Innovation



8

Research and innovation have become essential growth engines in modern societies. They drive advances in knowledge and technology, transform the way we live, create a more diverse job market, change production methods, and spur trade. Research and innovation are also responsible for significant strides—especially in medicine—that contribute to our well-being. Research-supported innovation is the primary means by which societies raise their living standard, continue to thrive, and create wealth that can be distributed within economic sectors and throughout the community.

The Québec agriculture and food sector boasts world-class research institutions that have helped the entire agrifood industry adopt best practices, achieve high productivity, develop new products, diversify, market its products globally, and improve working conditions.

As industrialized countries and emerging economies dedicate more and more resources to research and innovation, where does Québec stand?

In modern economies, an integrated research and innovation system, also called an innovation chain, consists of three networked components:

- Universities and basic and applied research centers that specialize in a particular field
- Liaison and technology transfer centers that seek to commercialize research discoveries, disseminate knowledge throughout the industry, and get business to adopt or adapt to new technologies
- Research and development (R&D) companies, supported by R&D and innovation tax measures and incentive programs, that establish close ties with research institutions

The innovation chain in the agriculture and agrifood sector consists of several federal, provincial, semipublic and private organizations.

INSTITUTIONS

1. Federal government research institutions

Agriculture and Agri-Food Canada manages 19 research centers throughout the country, four in Québec. The list includes the

- Food Research and Development Centre, in Saint-Hyacinthe
- Dairy and Swine Research and Development Centre, in Lennoxville
- Soils and Crops Research and Development Centre, in Québec City
- Horticulture Research and Development Centre, in Saint-Jean-sur-Richelieu

The federal government's research and development centers employ some 500 people. They have national mandates to conduct basic and applied research and maintain close ties with agricultural and agrifood companies and with the other research institutions and centers in Québec, across Canada, and abroad.

2. Research and technology transfer institutions supported by the Québec government

Three leading **university** institutions play a major role in agriculture and food industry research. More than 300 researchers work for them, often in partnership with governments, specialized research centers, and businesses. They are Université Laval's Faculty of Agricultural and Food Sciences, McGill University's Faculty of Agricultural and Environmental Sciences, and Université de Montréal's Faculty of Veterinary Medicine. These three universities are estimated to have an annual agriculture and agrifood research budget of about \$34 million. Some branch campuses of Université du Québec and Université de Sherbrooke also conduct agrifood research. By comparison, the University of Wisconsin College of Agriculture and Life Sciences alone had a public research budget of \$80.7 million in 2006–2007.

Beginning in the nineties, the Québec government helped set up five **applied research centers** that continued the activities formerly carried out by MAPAQ. These not-for-profit centers receive some of their financing from MAPAQ and must solicit, mainly from business in the agrifood sector, additional financing to pursue their activities. They specialize in agro-ecology, sugar maple cultivation, animal sciences, grains, and beverages respectively. Some 45 researchers and scientists work in the five applied research centers.

MAPAQ was also involved in creating five **centers of expertise** that function primarily as technology transfer centers. MAPAQ helps finance their activities. Four of the centers specialize in dairy production (Valacta), sheep production, swine, and ornamental horticulture respectively. The fifth, Centre de référence en agriculture et en agroalimentaire du Québec (CRAAQ), functions as a clearinghouse for transferring knowledge to all agrifood systems.

There are also a very large number of **technology transfer centers** and **college centers for technology transfer**, 19 according to the last count of Alliance pour l'innovation en agroalimentaire (APIA). They are either independently functioning regional organizations or affiliated with Institut de technologie agroalimentaire or a cegep. Technology transfer centers' resources vary widely. Some have only three or four employees while others maintain a staff of 30. They are involved in many fields, including greenhouse production, food processing, quality systems, horticulture, agricultural technology, biotechnology, and agroecology.

3. Counterproductive dispersion

The first thing that strikes one about the organization of research in Québec is the wide range and broad dispersion of research and technology transfer centers. The Québec government provides financial support for 37 different organizations. The picture gets even more fragmented when multisectoral organizations active in agrifood are included. In its brief to the Commission, APIA noted that "There are currently a total of 40 organizations specializing in the agrifood sector and at least 18 multisectoral organizations that support the private sector's innovation efforts in the agrifood industry."

The Québec government earmarks about \$23 million each year to fund these organizations, which is very little when you consider that many of them have costly equipment, buildings, land, laboratories, and infrastructure. Given the Québec government's limited resources, the multiplicity of research and transfer organizations has serious consequences:

- A number of them simply lack the resources or critical mass to make a significant impact on innovation.
- Organizations compete against one another to secure their share of the Québec government budget.
- The same competition comes into play with other financial backers and public and private partners.
- Research and technology transfer organizations expend a significant amount of energy looking for funding to ensure their own survival.
- Administrative costs as a proportion of the actual research and technology transfer budget are excessive given the small staffs of several organizations.

The desire to have an expertise and research center for each type of production and each region is understandable—they are strategic development tools. Yes, we must be careful to provide regions with access to research facilities. But a transfer center with only two staff members clearly lacks the resources to fulfill its mission of supporting the innovation process of enterprises. Scattering resources across a large number of institutions is undeniably counterproductive. The amount of time personnel spend seeking financing does nothing to further the development of agriculture and the agrifood industry.

Even more important, competition for operating budget funds and the opportunity to conduct research projects is not conducive to networking. Yet synergy among research organizations is an essential prerequisite to their effectiveness and even utility.

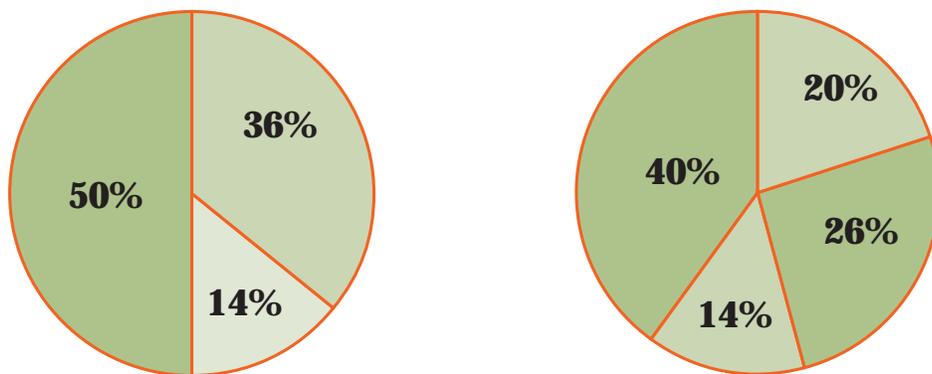
R&D FINANCING

According to a compilation by APIA, research and development spending averaged \$170 to \$180 million a year over the last eight years. Table 25 shows the breakdown by stakeholder.

About 36%, or \$61 million, of this financing comes from the federal government. The Québec government allocates some \$25 million to agricultural and agrifood R&D. Agricultural producers, cooperatives, and other private enterprises are responsible for half of all R&D spending. Government research and development spending comes to only 0.2% of Québec's gross domestic product (GDP) in agrifood.

As Table 26 shows, agricultural and food processing companies make very little use of reimbursable R&D tax credits. In 2004, they claimed only \$20.4 million in credits, or 3.3% of the R&D tax credits available. However, the trend among companies in the last few years has been toward increasing use of such tax credits.

Table 25 | RESOURCES ALLOCATED TO R&D IN THE AGRIFOOD SECTOR IN QUÉBEC



Source: ASSOCIATION POUR L'INNOVATION EN AGROALIMENTAIRE, brief presented to Commission sur l'avenir de l'agriculture et de l'agroalimentaire québécois, 2007

Tableau 26**R&D TAX CREDITS CLAIMED BY THE QUÉBEC BIOFOOD SECTOR, 2002 TO 2004**

Biofood Sector	2002		2003		2004	
	thousands \$	%	thousands \$	%	thousands \$	%
Primary sector (production)	5,539	0.8%	6,603	1.0%	6,106	1.0%
Secondary sector (processing)	6,361	1.0%	9,611	1.4%	9,644	1.5%
Tertiary sector (distribution)	2,643	0.4%	4,204	0.6%	4,699	0.8%
Total – Biofood Sector	14,543	2.2%	20,417	3.1%	20,448	3.3%
All R&D Tax Credits	668,328	100.0%	667,830	100.0%	624,878	100.0%

Sources: MINISTÈRE DES FINANCES DU QUÉBEC/REVENU QUÉBEC and MINISTÈRE DES FINANCES DU QUÉBEC

In its report's food processing chapter, the Commission makes recommendations designed to encourage greater use of reimbursable R&D tax credits. The recommendations apply to all R&D activities, both in production and food processing.

INNOVATION

Innovation in production systems is usually defined broadly. The term covers new product development, of course, but also production process improvements and the adoption of methods involving less time or raw material waste, processes that eliminate environmental damage or save energy, processes that make products more attractive to and cheaper for consumers, etc. Innovation lies at the crossroads, so to speak, of research and development, production techniques, production cost analysis, and marketing requirements and touches on all aspects of a company's management.

Employees play a decisive role in a company's innovation culture. In some work environments, they are the impetus for process or customer service improvements or for developing technical refinements that make the company more efficient.

At the Commission's public hearings, the chairman of Centrale des syndicats démocratiques (CSD) put it this way: "At CSD, we have long known that the biggest productivity gains come from investing in people, improving work organization, and promoting worker participation in the company." Ministère du Développement économique, de l'Innovation et de l'Exportation (MDEIE) has set up programs to support and coach businesses in their innovation processes, and agricultural and agrifood companies would benefit from taking advantage of them.

In the opinion of the Desjardins Group, "Now more than ever, constant innovation is an essential part of planning for the future [...] Innovation remains a major factor in competitiveness, since it enables companies not only to set themselves apart in markets but to lower their production costs."

Very few farm producers conduct research and development. However, many of these men and women innovate, either by applying new techniques or processes or adapting technologies to their specific needs. Their ingenuity is remarkable. We should stress the decisive role of agricultural extension officers in transferring technology to farms and in the innovation process at agricultural enterprises.

Meanwhile, processing companies are increasingly aware of the importance of innovation. Agriculture and Agri-Food Canada estimates that 45% of processing firms were involved in R&D or innovation between 2001 and 2003 and that 48% of them developed new products during that period. Food processors realize that they make their best profit margins on new products. At Commission hearings, Groupe A. Lassonde pointed out that “49% of the revenue of the top-performing companies comes from products that didn’t exist three years ago.”

Just 15% of food processors take advantage of government programs to finance their innovation projects. Yet incentives, programs, and technical aid to support and foster the development of a culture of innovation in companies exists on both the federal and provincial levels. The primary obstacles reported by companies, especially small business, are financial and organizational. Small firms lack the in-house resources to set up an innovation process or draft proposals that would enable them to obtain grants for this purpose.

For its part, the government needs to better tailor its innovation grant programs to the realities of the food processing industry. APIA notes in its brief that “Current programs were created to solve non-recurring problems in the innovation process (silo approach). We have noticed that this trend is more pronounced in programs offered to food processing companies.”

THE CONCERNS THAT SHOULD GUIDE THE QUÉBEC GOVERNMENT’S RESEARCH AND INNOVATION SUPPORT

Choose and orient

The research world is immense, and the research needs of the agricultural and agrifood sector are great. There are all kinds of phenomena about which we know little, basic questions that have not been resolved, and technologies we have yet to master. Meanwhile, the needs and challenges mount each day. So we must pick and choose our fields of research. This is especially important for a small society such as Québec, which, even if it spent the same proportion of its GDP on R&D as the majority of developed countries, cannot initiate and sustain a large number of research programs.

Québec decision makers should be driven by two concerns in determining the orientations of publicly funded research. First, it is important to maintain—chiefly in universities and selected specialized research centers—cutting edge expertise so that the province can follow international research and understand the issues involved. A good case in point is research on genetically modified organisms, or GMOs. Québec will never have the resources to field research teams like in some countries. But Québec researchers must stay on top of advances in GMO science and studies to gauge their effects, so that they can provide governments and the citizenry with up-to-date information and insights.

Second, research priorities should be defined on the basis of Québec's strengths in agriculture and agrifood, the specific characteristics of its agriculture, and the potential of certain standard Québec products.

In summary, the Québec government has no choice but to orient the research it subsidizes toward the most promising niches, where research investments will yield the highest dividends for agriculture, the food sector, and Québec society. It cannot leave the decisions up to institutions alone, considering the resources it can reasonably afford to allocate to research.

The government should also gradually shift more of its budgets to research and technology transfer. A forward-looking sector must give higher priority to research and related activities.

MAPAQ allocates \$23 million annually, or 3% of its budget, to research, technological innovation, and knowledge transfer, which seems inadequate.

In some farm production sectors, a relatively modest sum is charged on each unit sold, for R&D and knowledge transfer purposes. This is one of the ways agricultural producers help finance Valacta, the dairy production expertise center, by defraying some of its operating costs. This kind of targeted product levy can also be a regular source of financing for research and technology transfer.

Utilizing tax breaks

The agriculture and food sector must also take advantage of the tax breaks and research and development facilities available to it. We have seen that R&D credits and the Québec Research and Innovation Strategy are not widely utilized by the sector's businesses and institutions. These tools should be embraced to spur the growth of agriculture and agrifood. Our many technology transfer centers must pay more attention to results when introducing innovation tools to companies. Organizations such as Conseil de la recherche agricole et agroalimentaire du Québec can also be very useful in networking companies, research institutions, and innovation grant programs.

People testifying at Commission hearings complained about the amount of red tape involved in the tax credit application process. Groupe-conseil R & D agricole & agroalimentaire acknowledges that, "All the (R&D) forms are on line, but it can be quite a feat of artistry to interpret them in some cases. You have to know the technical vocabulary and know about research structures." In the opinion of Groupe Bergeron-Thibault, "processing deadlines and direct communication and simplified access would do a lot for research and development." Though we do not deny that tax credit administrative procedures could be streamlined, they will always seem complicated to the uninitiated. Just as businesses employ accounting and tax experts, they must acquire the habit of seeking R&D and innovation advice and assistance.

Agroprocessing firms must invest more in research and development. In Québec, businesses defray 60% of R&D expenses, and the government has set a target under the Québec Research and Innovation Strategy to raise that to 66% by 2010. Companies account for only 50% of total R&D investments in Québec in the agriculture and food sector. Partnerships between businesses and research institutions must become more common; only 15% of food processing companies have signed partnership agreements, despite the major tax breaks they provide.

Only a few agroprocessing enterprises have the resources to set up their own research centers. The government should encourage them to create a research infrastructure, because the work of these centers is strategically important and can benefit the entire system. In the Québec Research and Innovation Strategy, the government offers incentives to multinational subsidiaries, in order to draw global research projects to Québec. The same incentives should be offered to Québec companies making comparable efforts.

The Agropur cooperative has decided to create a dedicated research and development center, expected to be up and running in September 2008. Its representative made the following statement to the Commission: “In an era of globalization, if Canada and Québec hope to stay in the game, it is essential that companies such as ours have research facilities and a critical mass of specialized researchers to ensure the industry’s survival.”

Added the representative, “The investments required for the center will have a major impact on the entire agroprocessing industry here. On the other hand, the very nature of the investment makes the project riskier than traditional agrifood investments. The organization was extremely surprised and disappointed at the government’s lack of interest in financially supporting this type of initiative. The fact that the project gives the Québec economy something to build on allows us to sharply improve our competitiveness and capacity for innovation and keep up with the multinationals, which are increasingly ‘hanging their shingle out’ in Canada. It should be pointed out that most of these firms, especially in Europe, received government support to create their world-class research infrastructures.”

The government must also be efficient. The dispersion of our many research and technology transfer centers and their lack of integration makes the agriculture and food sector much less efficient in an area that is critical for its development. We must act. APIA stresses the need for integration as follows: “At present, some food systems have innovation strategies, but there doesn’t seem to be an integrated strategy for the entire agroprocessing industry that would promote greater efficiency. We must quickly choose the most promising niches and issues to focus on, so that we can set our basic directions.”

GUIDELINES FOR SETTING RESEARCH PRIORITIES

It is not appropriate for the Commission to act alone in setting the major research priorities of the next few years in the agriculture and food sector. For one, it lacks the expertise to do so; for another, it is the kind of exercise that should be done through consensus-building, under the leadership of MAPAQ.

However, keeping the premises of the above point in mind, two major, dominant concerns shared by all in the industry should guide our choice of research priorities:

- Health
- Environmental friendliness

These two major guidelines should then be applied to

- Québec agriculture’s strengths
- The fact that our agriculture is based in a northern climate
- Solving problems that arise in agricultural production and food processing

Taken together, these prime considerations point to certain research and innovation fields. Health concerns, for example, offer huge potential for enhancing the appeal of certain mass-marketed products such as milk. Indeed, milk contains more than 1,000 ingredients, some of which can be used to produce very high-added-value health foods and thereby meet the demands of those consumers calling more and more for these types of products. Some Québec companies have successfully developed and marketed a wide variety of dairy products by emphasizing certain characteristics associated with healthful eating. They can compete in the dairy ingredient chain.

The extraordinary success of efforts to expand the cranberry market could foreshadow a similar boom for blueberries and several other Québec berries known for their high antioxidant content, a very big marketing tool it would appear. Entrepreneurship and research are the only ways to exploit these opportunities. Likewise, Québec's expertise in biotechnology, protein science, and nutraceuticals provides a broad foundation for exploring the vast world of functional foods.

The same is true of food safety and the demand for products and meat free of pesticides and other residues, GMOs, hormones, etc. The expansion of organic farming in Québec is being hindered in large part by a lack of support for research. The growth of traceability is inevitable, especially in a world in which the risks of zoonosis and other epidemics are on the rise. Research must help manage both epidemic and environmental hazards. Likewise, new problems are emerging, both in production and processing, and research must do its part to help us understand them and provide a solution.

Then there is the issue of maple products. Maple is very closely identified with our northern climate, with Québec producing over 85% of the global supply. Research to date, despite the modest resources allocated to it, has opened up promising avenues. We need to step up efforts in this area, not only in terms of technical research, but studies of potential markets. A massive applied research push is needed, focusing on the processing of maple products.

Several regions of the world are investing heavily in research on the environment and agriculture. Québec must pay particular attention to its northern environment, that is, it must understand how farming and animal breeding practices that may be common elsewhere need to be adapted to the biophysical character of the Québec territory. For that, the province can count on Institut de recherche et de développement en agroenvironnement. Québec is also home to substantial reserves of fresh water. It is responsible for protecting the quality of this resource of incalculable importance to the future of agriculture, biodiversity, and the health of the Québec people.

The environment is also becoming a research priority for certain types of production, notably swine. Hog breeding, like other kinds of production, will have to strictly meet with cross compliance requirements as a precondition of its expansion in Québec.

Recommendations

Consequently, Commission sur l'avenir de l'agriculture et de l'agroalimentaire québécois recommends

- 27.** That the government allocate more resources to research and innovation in the agricultural and agrifood sector, mainly by
- Revising its budget priorities
 - Introducing a levy on certain targeted agricultural products, to be used for research and innovation under partnership agreements with agrifood system stakeholders
 - Granting a refundable tax credit to farm producers and other agrifood businesses, which can be applied to the levies on agricultural products, to support research, development, and technology and knowledge transfer
- 28.** That research priorities be based on the strengths of Québec agriculture, the priority issues on which its development depends, and the specific needs of its northern climate, from two decisive perspectives:
- Health concerns
 - The importance of environmental protection
- 29.** That the government improve the efficiency of research and technology transfer organizations, notably by adopting the following measures:
- Make government financial aid contingent on actual networking of all research and technology transfer centers, by associating them with a lead research center in their field of expertise, make the lead center responsible for coordinating all organizations in the field, and provide the lead center with funding for that purpose
 - Encourage the main research centers to establish partnership ties with certain international research centers
 - Streamline technology transfer services by requiring granting ministries to coordinate their actions, specifying the results expected of each technology transfer center, and having them pursue more complementary initiatives
 - Make a significant share of the funding for these organizations subject to their actual networking efforts and the extent of the service agreements or contracts they have signed with the firms in their field
 - Consolidate existing centers before creating new ones
 - Grant special financial assistance to firms that create a research center or attract to Québec international research business outsourced by a multinational company and that establish ties with international research centers
- 30.** That MAPAQ create and periodically revise, with institutional and private partners in the field, a research & innovation framework plan outlining research priorities, setting results targets, and specifying certain guidelines for the networking of research and transfer organizations.

The Environment



9

Agriculture has deeply transformed the environment in every country around the world. Where a diversity of wild plants and animals once thrived, agriculture has given pride of place to of a few, limited species. Such was the price to pay to emerge from the hunter/gatherer lifestyle of Antiquity. Clearly, a return to the past would be unfathomable. And we are very comfortable in our ever-changing landscapes forged out of human ingenuity. This altered environment nonetheless runs on resources that must be sustainably managed. A strong consensus has thus emerged in favor of preserving the physical environment. Henceforth, all forms of human activity must be conducted with the environment's protection in mind.

INTERNATIONAL CONTEXT

The most recent and most comprehensive report on the state of the environment was published in 2007 by the UN⁷³. The observations it makes are alarming:

- The Earth's surface is heating at an accelerated rate, which is causing snow and ice to melt and increasing the average sea level.
- Around the world, over two million people die prematurely every year due to air pollution.
- The "hole" in the ozone layer above the Antarctic (the layer that protects humans from ultraviolet rays) is larger than ever.
- The land is deteriorating under the effects of climate change and nonsustainable land use.
- Deserts are expanding. Desertification directly affects over 250 million people and threatens over 4 billion hectares, or one-third of the Earth's land mass⁷⁴.
- The per capita availability of fresh water is falling globally, and contaminated water is the primary environmental factor responsible for human illness and death.

- Aquatic ecosystems continue to be severely overexploited, threatening the sustainability of food stores and biodiversity.
- The distribution and abundance of the majority of wild species is on the decline.

The UN stresses that "these unprecedented changes are due to human activities in an increasingly globalized, industrialized, and interconnected world." It calls on all countries and all sectors to strive for *prevention, mitigation, and adaptation* and to once and for all make the commitment to sustainable development.

73. UNITED NATIONS ENVIRONMENT PROGRAM, *GEO-4, Global Environmental Outlook*, New York, October 2007

74. UNITED NATIONS, *The United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa*, New York: Sept. 1994

The scope of environmental problems has led countries to ratify international conventions and action plans designed to mitigate the impact of human activity on ecosystems and living creatures. At the Rio Earth Summit in 1992, three major conventions were ratified:

- The United Nations Framework Convention on Climate Change (which in 1997 led to the Kyoto Protocol that set greenhouse gas emission reduction objectives for developed countries)
- The Convention on Biological Diversity
- The Convention to Combat Desertification

Canada has ratified all three of these conventions. It is required to produce an action plan demonstrating the means it intends to implement to reach the objectives of these conventions. Canada and Québec have developed plans to combat climate change, including regulatory provisions and voluntary measures to reduce greenhouse gas emissions. To promote biodiversity, the Government of Québec has developed an action plan designed to draw a fair line between the benefits of exploiting natural resources on the one hand and preserving sensitive environments on the other.

In our highly interconnected world, the environmental problems of some become the problems of all, as in the popular expression “think globally, act locally.” This is why international conventions create obligations for countries to update their environmental regulations. World-wide concern over global warming is something that ultimately even affects Québec farmers in their fields.

Considering the natural disturbances many other regions around the world have suffered, including drought, desertification, insect infestation, and tsunamis, Canada and Québec appear to have got off fairly easy. These great changes are just beginning to touch us, but the international efforts needed to combat them concern us more and more directly.

CHANGES IN QUÉBEC ENVIRONMENTAL REGULATIONS

Québec woke up to the realities of the environment relatively late. The *Environment Quality Act* was adopted in 1972, and Québec's Ministère de l'Environnement was created in 1979⁷⁵. The first major government initiatives were to fight industrial pollution and put a stop to the widespread practice of dumping severe pollutants that contaminated watercourses. Other actions targeted industries responsible for air pollution. As for municipalities, they were put to work on an extensive wastewater treatment plan.

The first environmental initiatives to address agricultural pollution were implemented in the 1980s.

The following are some of the noteworthy regulatory and legislative measures adopted:

- 1981: *Regulation respecting the prevention of water pollution in livestock operations*
- 1987: *Pesticides Act* and the *Regulation respecting permits and certificates for sale and use of pesticides*
- 1997: *Regulation respecting the reduction of pollution from agricultural sources* (which imposed an agroenvironmental fertilization plan)
- 2002: *Agricultural Operations Regulation*
- 2002: Pig farm moratorium

Other legislative and regulatory initiatives have had an impact on agriculture and the environment. This is notably the case of measures dealing with agricultural land preservation, land use planning, wildlife management, protection of biodiversity, sustainable development, and the Québec water policy.

75. The Environmental Protection Services of Ministère des Ressources naturelles had been responsible for the environment since 1972.

In addition, various strategies—generally accompanied by technical and financial assistance programs—were developed to change certain agricultural practices and make them more environmentally friendly. Here are a number of examples:

- Canada–Québec Subsidiary Agreement on Soil and Water Conservation (1987)
- Plant Protection Strategy (1992), which was designed to reduce pesticide use by 50%
- Agricultural component of the St. Lawrence Vision 2000 Action Plan (1993)
- Canada–Québec Subsidiary Agreement for Sustainability in Agriculture (1993)
- Agroenvironmental pig farming plan (1997)
- Phosphorus reports (2003)
- Cross compliance mechanisms (2005)

The CEO of Desjardins Group summed up his view of the current debates on agriculture and the environment as follows: “In the agricultural sector, the environment has been the focus of debates for many years. It raises questions about agricultural development models, sparks social tension, and also spurs environmental protection efforts both by farmers and other concerned parties.”

Environmental regulation in Québec has evolved towards a farm-by-farm approach, strongly influenced by the impact livestock farming (particularly pig farming) has had on ecosystems.

In a 2004 study, Guy Debailleul of Université Laval and Denis Boutin of Ministère de l’Environnement⁷⁶ compared Québec regulatory requirements with those in other developed countries with similar livestock farming practices. The study revealed that, overall, Québec regulations did not differ markedly from the regulatory measures in other Canadian provinces and other regions or countries. For example, the researchers noted that

- Québec regulations were less restrictive in terms of the minimum distance between fertilization operations and storage sites. This required distance is to minimize the risks of surface and ground water contamination. Fertilization is prohibited within three meters of watercourses in Québec, nine meters in Ontario, and 35 meters in Brittany and Catalonia.
- Québec regulations were stricter with regard to the phosphorus standard, fertilizer management, and maximum size of livestock facilities before farmers were required to apply to the environment ministry for authorization.
- Québec requirements on odor management distances and restrictions on fertilization periods more or less matched those in other provinces and countries.
- The cutoff above which a livestock farming project would trigger a public inquiry and consultation mechanism was higher in Québec than in most other regions or countries.

76. Guy DEBAILLEUL and Denis BOUTIN, “La sévérité de la réglementation environnementale québécoise dans le domaine des productions animales : mythe ou réalité?”, *Vecteur Environnement*, Vol. 37, No. 2, March 2004, pp. 31–35

ADAPTATION BY FARMERS

While laying out the regulatory framework and environmental protection strategies applicable to the agriculture sector, the government also designed technical and financial assistance programs to help farmers comply with environmental regulations and adopt soil and water quality protection practices.

Farmers invested \$626.6 million between 1992 and 2006 to make their operations more environmentally friendly. They received \$357.7 million in assistance during this period to do so.

Some of the more significant measures farmers have taken include

- Investing to equip livestock farms with impermeable storage structures for manure, pesticides, fuel, and chemical products, as well as windbreaks and facilities to reduce odors
- Reducing by 11% the volume of pesticides used in farming between 1992 and 2003, in response to the MAPAQ Plant Protection Strategy
- Developing agroenvironmental plans, which led farmers to purchase 45.7% less phosphates and 46.2% less potash between 1992 and 2005. Nitrogenous fertilizer purchases rose by 2.8% in this period⁷⁷
- Developing buffer zones and fences to protect watercourses at 87% and 57% respectively of farms that border a body of water⁷⁸

- Increasingly practicing crop rotation in order to protect the soil, avoid erosion, and reduce the seepage of inorganic fertilizer into watercourses
- Implementing more accurate organic fertilizing techniques, restrictions on fertilization periods, and techniques like direct drilling, which reduce surface runoff and soil erosion
- Complying with the phosphorus standard, based on a farm-by-farm plan whereby the characteristics of the soil and the type of plant cultivated determine the amount of inorganic fertilizers to use and organic fertilizers to spread. This requirement is part of the cross compliance rules under which farmers who do not comply with the phosphorus standard become ineligible for certain programs, including the refund of a significant portion of their property taxes. Farmers have until 2010 to comply.

Farmers' response to the regulations and society's expectations concerning the environment has been significant and far reaching. As we will later see, there still remain actions to take, deficiencies to correct, and practices to change. But farmers deserve credit for their commitment thus far, and we must encourage them to continue their efforts.

Is the technical support available to farmers accessible enough and does it help them reach the environmental goals we set for them? In this regard, Regroupement des organisations de bassin versant du Québec noted the following at the Commission hearings: "The lack of program integration and inefficient communication between the various ministries involved in agriculture are detrimental not only to farmers, but also to relations between them and the various ministries, specifically Ministère du Développement durable, de l'Environnement et des Parcs (MDDEP)."

77. Data from AGRICULTURE AND AGRI-FOOD CANADA and the CANADIAN FERTILIZER INSTITUTE

78. Data from UNION DES PRODUCTEURS AGRICOLES

VITAL ROLE OF AGROENVIRONMENTAL ADVISORY SERVICES

The reason Québec farmers have been able to make progress toward greater respect for the environment is in large part due to the contribution of expert consultants who have understood their needs, developed agroenvironmental assistance plans, and helped them implement them.

These advisory services—jointly funded by the government and farmers—have no equivalent elsewhere in Canada.

Agroenvironmental advisory services are provided by some 300 independent professionals and technicians organized in a network of 83 advisory clubs. They diagnose farming operations and identify steps to help farmers reach the agroenvironmental goals set out in the phosphorus standard. These professionals also monitor the agroenvironmental plan's implementation, notably with regard to compliance with the phosphorus standard, respect for fertilizer storage and spreading standards, and the adoption of optimum environmental practices. They also encourage farmers to go beyond mere compliance with environmental regulations and urge them to make it standard procedure to adopt practices that respect the biophysical environment while improving the overall performance of the farming enterprise.

The network of agroenvironmental consultants serves between 8,500 and 10,000 farms in Québec (out of 30,675). The network's 2006 activity report lists the key actions taken by the farmers who enlisted the help of these consultants. These notably include

- **Fertilizer management:** Of farmers who sought agroenvironmental consultation, 43% use low ramps to spread manure, 8,000 completed a phosphorus report, and 93% have an agroenvironmental fertilization plan.
- **Pesticide use:** The total surface area of land cultivated without herbicides rose from 28,240 hectares to 177,287 hectares between 2001 and 2005. This increase stems from the development of market niches for products without inputs (particularly wheat and soy) and from changes made in the surveys conducted among producers (more specific questions yielded data that had not yet been compiled).
- **Soil conservation:** Farmers who sought consultations services conducted minimum tillage on 39% of cultivated land areas and used zero-tilling methods on over 40,500 hectares of land.
- **Watercourse protection:** Farmers planted 72,000 trees on their land, farmers built 1,574 kilometers of buffer strips along watercourses (78% of watercourses are protected), 68% of farmers prohibit livestock from accessing watercourses, and 5,458 farms built facilities to protect their drinking water wells from surface contamination.

These aspects of the report concern farmers who use agroenvironmental consultation services.

THE GENERAL STATE OF THE ENVIRONMENT

Where are we now some 30 years later in the fight against pollution in all its forms? What have we achieved? What are the main actions by the agriculture and agrifood sectors that help improve the quality of the air, water, soil, and biodiversity, and what are the main things to improve?

Clearly, agriculture is not the only activity that impacts the environment. Industry, transportation, urban development, and many other human activities can in their own way disrupt the balance of ecosystems. We need to establish how much agriculture is contributing to air, water, and soil pollution compared to Québec society as a whole and what it is doing to solve these problems.

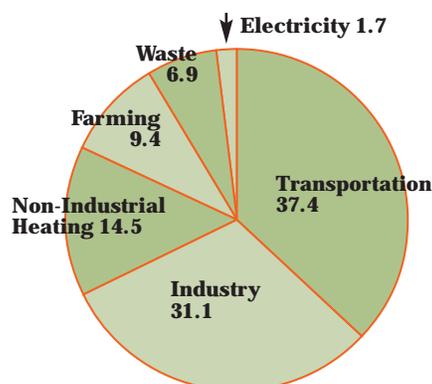
1. Air

Agriculture affects air quality, primarily by producing greenhouse gases, releasing odors, and transporting ammonia (from livestock farms) and pesticide residues.

Agriculture-related activities do not produce large quantities of carbon dioxide; they make up only 1% of all Québec carbon dioxide emissions. However, agricultural production releases gases into the atmosphere that have a very serious greenhouse effect. For example, the nitrous oxide released from decomposing natural and inorganic fertilizers has a 310 times greater global warming effect than carbon dioxide. In Canada, agriculture is responsible for 50% of nitrous oxide emissions. The methane emitted by animal dung and manure pits has a global warming potential 21 times greater than that of carbon dioxide. Agriculture produces 30% of methane emissions in Canada. Québec agriculture is therefore responsible for 9.4% of carbon dioxide equivalent greenhouse gas emissions produced in Québec.

Table 27

BREAKDOWN OF QUÉBEC GREENHOUSE GAS EMISSIONS IN 2000 (%)



Source: MINISTÈRE DU DÉVELOPPEMENT DURABLE, DE L'ENVIRONNEMENT ET DES PARCS, 2006

It is possible to significantly reduce greenhouse gas emissions by changing the way fertilizers are managed and using biogas to capture methane.

Nitrous oxide production can thus be reduced by dosing inorganic and organic fertilizers quantities much more accurately according to the specific characteristics of the soil and plants cultivated, by developing fertilization plans, by reducing doses, by choosing the most effective time of the year (spring rather than fall), and by rotating crops.

Québec would make significant environmental gains if it used agricultural waste—particularly solid and liquid manure—to produce biogas. Electricity production techniques using biogas created by processing these organic materials are known and have been tested in a number of countries, such as Germany.

For the required investments to be profitable, however, considerable amounts of waste are needed, and electricity prices would have to be higher than those currently paid by Hydro-Québec. In Germany, for example, electricity produced by methanizing agricultural waste can sell for 22¢ per kWh, whereas Hydro-Québec buys electricity from private producers at prices ranging from 3 to 7¢ per kWh⁷⁹.

79. Minutes from Journée sur la méthanisation des engrais de ferme, sponsored by the Greenhouse Gas Mitigation Program, Napierville, January 2007

Only large farming enterprises can consider biogas production in Québec, given the investments involved. However, it could be possible to group certain farms together, use a large portion of vegetable and animal agricultural waste, and even process certain types of municipal household waste to make a biogas production facility profitable. The main environmental problems associated with pig production could be very well be solved by using this green energy: we could efficiently process manure and other organic waste, use residues as solid fertilizer, and significantly reduce odors. Coexistence problems would also greatly diminish.

Biogas and biodiesel can also be produced using other waste materials that cause serious environmental problems: animal carcasses, slaughterhouse or poultry house waste, dairy waste, and other organic waste produced by farming, restaurants, food processing plants, etc. Producing green energy from these types of waste represents a major contribution to the environment and regional development.

However, prices for the electricity produced would have to be higher. The government should encourage Hydro-Québec to buy this electricity at a price that takes into account biogas's contribution to improving the environment and reducing greenhouse gases. Of course, shareholders—in this case the Government of Québec—would marginally reduce the royalties of the government corporation, but would benefit from this on a number of levels.

2. Water

Unlike many other regions of the world, Québec agriculture has little need for irrigation. This is why irrigation accounts for less than 5% of water consumption, while municipalities and the industrial sector are responsible for 49% and 46%, respectively. Over 80% of the water used by farming enterprises comes from ground water extracted via well.

One of Québec agriculture's biggest competitive advantages is the availability of water. Preserving the quality of this resource is therefore of critical importance.

Québec's public health director gave the following diagnosis of water quality at the Commission hearings: "The intensification of farming practices and the gradual phaseout of perennial crops in favor of annual crops has caused numerous soil and watercourse deterioration problems. [...] In Québec, the majority of watercourses and water tables located on agricultural land are contaminated to varying degrees by pesticide residues or fertilizer derivatives (such as nitrates and phosphorus)."

Water remains the ultimate receptacle for a number of pollutants. Many residues released into the environment end up in watercourses or water tables. In Québec, water quality is measured by an index that takes into account bacteria quantity and certain physicochemical parameters. According to water quality measurements by MDDEP for the periods of 1997–1998 and 2000–2002⁸⁰, water quality has improved very little, and even fallen in certain rivers.

80. MDDEP also carried out an assessment of the quality of potable water in Québec (1995–2002).

MDDEP must draw up a water quality report for 2007–2009. Meantime, we must go back to the data compiled in 1995 and 2002, which notably indicates that

- Drainage basins in central Québec and on the north shore of the St. Lawrence exhibit relatively good water quality.
- The water in basins in southwestern Québec has generally dropped in quality.
- The water in basins and subbasins where a large proportion of the land is used for agriculture (Châteauguay, Richelieu, Yamaska, L'Assomption, Nicolet, Boyer, and Chaudière rivers) is of poor quality.
- Poor water quality notably stems from an excess of suspended matter, phosphorus, nitrates, nitrites, and fecal coliform.

The periods of cyanobacteria proliferation in 2006 and especially in 2007 (when 194 lakes and rivers were affected) are troubling signs of how water quality is changing. Blue-green algae is caused by an excess of phosphorus in the water. Admittedly, farming is not the only culprit in the discharge of phosphorus, but it is clear that fertilizing practices, autumn plowing, and wide-row crops play a role.

As for ground water, MDDEP studies show that in recent years the wells that supply a number of municipal water systems in rural areas have had high concentrations of nitrates, especially in regions with intensive potato farming. Ground water in the Portneuf and Lanaudière areas also contains excessive concentrations of pesticides.

The Government of Québec has no legal framework that specifically protects groundwater quality. The only indirect measure is the *Groundwater Catchment Regulation*, which is designed to protect municipal drinking water sources. As a result, when the ministry analyzes a project in response to a certificate of authorization application, it has no legal foundation for assessing the project's impact on the water table—unless it is a source of drinking water—and taking the necessary actions.

Moreover, diffuse pollution is difficult to locate, control, and correct. Since surface runoff water carries residues from various sources, it is nearly impossible to determine whether a specific livestock farm or crop is the main cause of a deteriorating water quality index. However, this does not exempt agriculture from contributing to water quality; rigorous agroenvironmental management plans must be developed and systematically applied, and the results must be overseen by an independent organization. We must reduce the quantity of organic and inorganic fertilizers and adopt measures designed to significantly curb their discharge into watercourses.

In its brief to the Commission, Nature Québec recommends, “preparing agroenvironmental fertilization plans that use the actual amounts of farm manure spread, rather than average values; establishing fertilization needs based on the quality and productivity of crop profiles; and reducing the use of nitrogenous fertilizers, whether organic or inorganic.”

The provincial water policy adopted by the Government of Québec in 2002 recommends a **drainage basin** approach to water management. Municipal and government officials worked together with citizens, the agriculture sector, and industry representatives to form 33 drainage basin committees. These committees are tasked with developing water management plans.

There is wide consensus in Québec on the importance of conducting integrated water management from a drainage basin perspective rather than a municipal or administrative one.

Business representatives and citizens have also shown their willingness to work together for water quality at the local and regional level, which we applaud. In one way or another, their efforts are making a difference. It should be noted that many countries have been conducting drainage basin-based water management for many years.

Institut de recherche et de développement en agroenvironnement subscribes to the drainage basin approach. It expressed the following in its brief to the Commission: “Agroenvironmental initiatives must be guided by proper assessment of the region or drainage basin. Such assessments are needed for a clear understanding of the problems and their causes. The analysis may then be refined to a specific subbasin, farm, or field.”

It is also imperative for the various ministries to better coordinate their efforts, as Regroupement des organismes de bassin versant du Québec rightfully stressed in its brief to the Commission: “The large number of government and municipal stakeholders very active in the agriculture sector, as well as the sometimes fuzzy limits of their respective mandates, elicits a lot of confusion for farmers and creates major obstacles and risks for agricultural development.”

Québec drainage basin organizations have responsibilities that largely exceed their capabilities. They are underfunded, are understaffed, and have trouble mobilizing local and regional stakeholders.

In the report he submitted in December 2007, the sustainable development commissioner noted that only 9 of the 33 master plans on water had been tabled as at March 31, 2007, whereas all organizations were supposed to have completed them by 2005.

The Nouvelle-Beauce RCM related the following to the Commission: “We have a policy but no funding. Clearly, the drainage basin committees across Québec have taken steps. But, the willingness of their members to volunteer their time is the only reason any progress has been made. It is not normal for a resource like water to be so unprotected, poorly managed, dispersed, and divided among the various ministries and laws that regulate it on a sectoral basis. The drainage basin approach is preferred by the volunteer groups and other drainage basin agencies, which tirelessly give it their all to protect five hectares here or a spawning ground there.”

In order for the drainage basin approach to yield the results we are entitled to expect, three structural improvements must be made:

- Better assign government and municipal responsibilities with regard to the water policy and drainage basin-based management
- Incorporate drainage basin-based management into the integrated land planning vision and use data from the master plan on water in municipal and government land planning and development tools
- Provide drainage basin organizations with sufficient funding by increasing government and municipal resources and indicate what results are expected

3. Soil

The main source of information on the quality of Québec soil is a study conducted by MAPAQ in 1990. This study took inventory of the soil degradation problems observed in 12 Québec agricultural areas totaling 1.7 million hectares. It is unfortunate that the situation has not been reassessed on a large scale since 1990.

The MAPAQ report clearly indicates that the major farm soil degradation problems are related mainly to intensive corn and potato farming, which cause erosion, loss of organic matter, compaction, and damage to soil aggregates.

The report cites the following issues in particular:

- Deteriorating soil structure quality—due to the frequency of soil cultivation and reduced organic matter—in nearly 90% of the areas studied
- Overuse of phosphorus and potassium fertilizers in 60% of cultivated areas
- Declining concentrations of organic matter in 50% of soils
- Soil acidification (in 50% of soils) due to inorganic fertilizer use
- Erosion in 10% of cultivated areas

Soil quality issues clearly also affect water and air quality. In its account to the Commission, the Coaticook RCM expressed its concern about soil loss: “Simple changes in the ways we do things could reduce the amount of sediments found in watercourses. As soil and fertilizers are flushed away into watercourses, so too are farmers’ earnings.”

After the MAPAQ report was published, certain measures were adopted, mainly to address manure and inorganic fertilizer management. In addition, farmers were encouraged to adopt new practices such as strip cropping, covering plants after harvest (potatoes), planting windbreaks, and using more refined seeding and spreading techniques. Certain measures to protect biodiversity also have an effect on soil and water protection and health.

4. Biodiversity

Biodiversity refers to the presence of a wide variety of plants, animals, and microorganisms in an environment. The Convention on Biological Diversity also covers the preservation of ecosystems and the genetic makeup of species.

In an agricultural environment, a rich level of biodiversity offers advantages that often go unnoticed, but are of vital importance. In addition to protecting natural resources that are indispensable to agriculture (notably water), biodiversity fosters the natural processes needed for agricultural production: pollination, decomposition of soil organic matter, natural defense against certain parasites, etc.

Although by definition agriculture reduces biodiversity, certain agricultural practices can aggravate the situation. This is notably the case with deforestation, backfilling, shoreline modification, overfertilization, excessive pesticide use, practices that promote soil erosion, and the introduction of selected or OGM-based animal or plant species that compete with indigenous ones. Uniform livestock and crops jeopardize the sustainability of hardy breeds and varieties.

Modifying ecosystems more than is necessary for sustainable farming can destroy or alter habitats. Aquatic environments are particularly sensitive to various types of pollution and human activity (farming, urbanization, transportation). The number of breeding and bird migration habitats has declined in the St. Lawrence Valley in recent years and 480 plant and animal species are considered in danger, including eight species of birds⁸¹.

81. ENVIRONMENT CANADA, Canadian Wildlife Service, Québec City Region, 1999

The corrective and preventive measures needed mainly apply to watercourses. The Government of Québec drew up a 2004–2007 biodiversity action plan that presents a number of solutions to improve the situation in agricultural settings.

Some of the actions planned include

- Decreasing phosphorus and nitrogen pollution (leakproof manure storage for all livestock farms by 2010)
- Reducing pesticide use to 50% of 1992 levels
- Practicing integrated pest management for 70% of corn, soy, and potato growers
- Maintaining wooded areas in farming environments
- Conducting pilot projects to restore natural habitats in agricultural environments

In discussing the importance of buffer strips at the Committee hearings, Regroupement national des conseils régionaux de l'environnement du Québec explained, "Buffer strips are wildlife habitats that are essential to preserving biodiversity in farming environments. Riparian vegetation is an exceptionally rich living environment [...]. Riparian areas are usually very productive and boast great ecological diversity [...]. In addition to these benefits, buffer strips also offer important economic advantages, notably an increase in land and property value, reduced water treatment costs, and greater protection against flood damage."

Although some progress has been made, the hoped-for results in terms of biodiversity have not been achieved. Only 33% of farming enterprises practice integrated pest management, while the objective was 70%. Between 1992 and 2003, pesticide use in agricultural environments only dropped by 11%, well short of the 50% objective. However, the amount of pesticides used per surface unit has dropped (from 3.89 kg/ha to 2.50 kg/ha). It is important to note that a reduction in the volume of pesticides used is neither the only nor even the best indicator. This is because the nature of pesticides has changed in recent years: they can be more powerful and more targeted, and their effects less persistent. The cumulative effects of the various pesticides used should also be taken into account—an aspect no Québec or Canadian studies have covered. Furthermore, MDDEP's pesticide risk indicator for Québec (IRPeQ) shows that environmental risks associated with pesticide use dropped 26% between 1993 and 2003 while health risks dropped 32%.

Research strategies to reduce synthetic pesticide use have been implemented in 36% of areas where pest control is used. These measures notably include localized or band application, mechanical weed control, or the use of biological agents.

Improvements to biodiversity require more strict enforcement of regulations, notably with regard to phosphorus, nitrogen, and pesticides. More efforts must be made to conserve natural environments and better protect watercourses.

CROSS COMPLIANCE

Cross compliance is a concept that makes respect for the environment a condition for receiving certain forms of financial assistance. It applies to a number of government programs that specifically target businesses from various sectors, including agriculture. For example, the European Union's Common Agricultural Policy stipulates that farmers must meet specific requirements—not only with regard to the environment, but also health, animal welfare, and plant health—in order to receive direct assistance. In all, there are 19 directives and regulations that set out farmers' obligations.

It is important to remember that cross compliance is not a program intended to provide farmers with financial assistance so they can comply with environmental regulations. On the contrary, it is a basic prerequisite for producers to be eligible for agriculture support programs. The premise is that agricultural production must be eco-friendly; it must abide by the law.

In Québec, consensus on cross compliance was reached in the late 1990s. However, it only started to be applied in 2004, to the pig farming sector, and to other types of farming in 2005. Cross compliance measures are now part of the environmental standards that farming enterprises must comply with in order to qualify for certain financial assistance programs. Since 2005, farmers have had to prove to MDDEP that they have submitted a phosphorus report in order to be eligible for property tax refunds. The same measure has begun to apply (though as yet only in part) under the farm income stabilization insurance (FISI) program.

The government cross compliance directives set out in 2004 stipulate that by 2010, allocation of government funds will be contingent upon compliance with all environmental regulations. For now, cross compliance applies only to property taxes (which represent \$100 million a year in financial assistance out of roughly \$1 billion overall) and essentially concerns only phosphorus.

There are two reasons for this choice. First, excess phosphorus levels cause the most serious water quality deterioration problems. Second, tools to measure phosphorus have been developed and can be used for all farming enterprises.

The sustainable development commissioner made the following observations regarding implementation of farming cross compliance measures in the first report he released and submitted to the Québec National Assembly in December 2007⁸²:

- Thus far, application of the principle of cross compliance has not been very convincing.
- Measures have been implemented slowly (no penalties if phosphorus report is not submitted or is unacceptable).
- La Financière agricole du Québec (FADQ) has not enforced measures in accordance with government directions and has not sufficiently monitored measures in force:
 - In 2005, FADQ monitored only certain farmers (less than 9%); in 2006, it only monitored the pig sector.
 - No penalties were imposed on 57 pig farms found in violation of regulations (these pig farm operators received \$42 million in financial assistance from FISI);
 - This is unfair for farmers who comply with the measures and makes it difficult to convince farmers of the seriousness of the approach (cross compliance).
- There is not enough management information to apply cross compliance measures:
 - MDDEP and FADQ systems are incompatible, which makes it hard to process data.

Additional steps must be taken toward cross compliance in order to make sustainable agriculture a reality.

Agricultural practices must be environmentally friendly. In the 21st century, there is no justification for continuing to harm biophysical environments

82. This document is part of the *Report of the Auditor General of Québec to the Québec National Assembly for 2007–2008, Volume II*. The information that follows comes from the *Observations of the Québec Commissioner of Sustainable Development*, produced after the publication of his report.

We need to develop methods other than the phosphorus standard alone that can offer a broader assessment of the impact agricultural operations have on the environment. Another major shortcoming of the current cross compliance measures is the lack of regulatory oversight.

Ordre des agronomes du Québec stressed the need to do more: “Québec’s agroenvironmental plan approach, which is based on soil richness, has made it possible to rationalize fertilization [...]. New findings and a better understanding of the issues now allow us to examine other factors that adversely affect the environment and to take other approaches, too.” In a sense, Réseau des jeunes maraîchers écologiques takes it one step further by asking, “Is cross compliance nothing more than completing a phosphorus report for our agricultural lands? We are waiting for other concrete actions and hope that implementation of the FADQ’s action plan by 2010 will be more ambitious.”

For Québec agriculture and agrifood, cross compliance should signify that

- None of the main government financial assistance programs for food production and processing or farm income stabilization insurance programs are available to those who fail to comply
- Each farming enterprise must meet specific, maximum targets for phosphorus, nitrogen, and pesticide use set out in an agroenvironmental report subject to certification (agroenvironmental advisory groups could clearly help with the development of these reports and their implementation)
- Best farm practices have been implemented, tailored to each farm to take into account the type of crop and/or livestock, the topography of the agricultural land, and the texture and structure of the soil

- Each farming enterprise has been regularly inspected by an individual so authorized by MDDEP in order to check the validity and application of the agroenvironmental plan, with sanctions imposable on noncompliant enterprises (significant reduction, or total elimination of payments to offending farmers)

The government should allow three to five years for cross compliance measures to be put into general practice. It would be advisable to set tighter deadlines for larger enterprises and for those whose operations seem to pose greater risks to the environment. Cross compliance must be perceived as a necessary goal in achieving environmentally friendly agricultural practices.

Farmers who understand the need for sustainable agriculture are familiar with good practices and are putting them to use. Greater use of agroenvironmental advisory services should help facilitate cross compliance.

Organic agriculture also needs better support because of its positive contribution to protecting the environment and the exemplary results of certain of organic practices. The same goes for minimum tillage practices. The government must coordinate its efforts better in order to facilitate farmer understanding of the imperatives of cross compliance and to more attentively monitor its application.

PRODUCTION OF ENVIRONMENTALLY RELATED GOODS

If agriculture is to be multifunctional, it will require cooperation from farmers to protect ecosystems or produce goods that improve environmental quality.

Farmers will need to look beyond their normal activities in agriculture and intervene in ways that help protect ecological heritage or provide infrastructure that serves the public good. This can lead to added expenses, or cause farmers to suffer losses when they lower production on portions of their land in order to protect habitat, and so fair financial compensation must be offered.

Adequate funding should be available to promote and sustain such environmentally related efforts as developing larger windbreaks and buffer strips than called for in regulations or agroenvironmental plans, leaving certain land in fallow, reforesting land deemed sensitive, preserving wetlands and peat bogs, reducing use of mineral fertilizers beyond environmental standards, endeavoring to grow new cultivars better adapted to Nordic conditions, preserving heirloom species, and maintaining and enhancing the countryside.

During regional Commission hearings, the UPA union in Portneuf-Ouest cited, as an example, the partnership between UPA and Fondation de la faune du Québec, which had led to characterization of a 140 km buffer strip on the Niagarett River. The government, it should be noted, is already compensating farmers for upkeep and development of farm woodlots.

Localities and regions should be the ones to determine which environmentally related goods are needed on farmlands. Responsibility for this should lie with the RCMs, working in conjunction with drainage basin organizations, MDDEP representatives (with MAPAQ serving as expert or technical advisor), and farmers. These efforts are essentially land use issues.

Designation of protective actions or development work to be performed should lead to multiyear agreements between RCMs and farmers. These should address financial compensation for farmers who voluntarily agree to comply with conditions that protect ecological heritage or produce environmentally related goods. Compensation for farmers should come from the Québec government, particularly the farm business support program proposed in Chapter 4. However, certain municipalities that protect their water reserves by imposing restrictions on farmers without offering compensation may need to be involved.

ANIMAL WELFARE

In recent years animal welfare has become a major subject of concern in some countries. People want to know how livestock has been raised and want nothing to do with meat said to come from mistreated animals, animals confined to overly small spaces, animals never let out to pasture, or animals subjected to excessive stress during transport or slaughter. In Europe, such concerns have given rise to specific directives and regulations that since 2005 have been part of the cross compliance rules of the Common Agricultural Policy, applied to payments made to farmers in the European Union's 25 member countries.

While animal welfare is seldom raised in North America, it would be surprising indeed for North American agriculture to remain shielded from this concern for long.

Québec farmers have an advantage: they can act proactively, making the first move. On one hand, practices used by a very sizeable proportion of Quebec farmers already comply with conditions generally associated with animal welfare. On the other hand, access to certain markets may soon be conditional on compliance with the rules of animal welfare.

European countries, which impose such standards on farmers, will take an increasingly critical look at imported products that involve livestock raised in what they deem unacceptable conditions. Some U.S. states have taken coercive measures to restrict the sale of foie gras, having concluded that force-feeding ducks and geese is animal cruelty, while others, in protest against seal hunting, are refusing to buy fish or seafood from Canada.

In a report filed with the Commission, Ordre des médecins vétérinaires du Québec emphasized that "Concern for animal welfare should not be interpreted as anthropomorphism, nor should it interfere with human or animal health. Québec should abide by public demands that could very well become the trade requirements of its business partners."

The corporation suggests the following steps to meet this challenge:

- Define the scientific parameters of animal welfare
- Apply these parameters to daily practices
- Comply with criteria for food safety and economic viability
- Establish national standards and consider making them mandatory
- Set up a credible audit system

The agriculture and agrifood sector has the opportunity to commit to a proactive approach to animal welfare and should seize it, instead of waiting until outside events or public demands force it to act in haste.

Québec may even gain a competitive edge by publicizing the fact that its agricultural policies meet the most rigorous international standards of animal welfare. This could be yet another way to differentiate ourselves in North American markets.

FOOD PROCESSING

The question of the environmental impacts of food processing plants did not come up at Commission hearings. These plants use significant amounts of potable water and produce waste that must be treated to avoid environmental damage. For these reasons, they generally locate in municipalities that have adequate water supplies and wastewater treatment facilities.

Food processing plants must also possess certificates of authorization under the *Environment Quality Act* of Québec. Certification depends on either availability of municipal wastewater treatment facilities or, in the most extreme cases, the biophysical locale's capacity to handle waste expelled directly into the environment.

A common feature of many food processing operations is the large amount of waste they produce. Treatment of meatpacking plant waste, for example, is a big concern. This question has been addressed above.

GENETICALLY MODIFIED ORGANISMS (GMOs)

1. Challenges and concerns

Immense progress has been made in the field of genetics since Gregor Mendel's discoveries in the 19th century. Success has come from ever more exacting selections from within the same living species, making use of "natural" mutations in genetic material.

With genetic engineering, science is entering new territory and crossing new borders. Some organisms are structurally altered, either by modifying their base genetic material or introducing genes from other species. This process, which we call *transgenesis*, begets new organisms that possess different traits from their forebears. These altered organisms may produce substances that are of use in medicine, or they may be able to resist infection or other limitations that until now have affected the originals.

We can foresee the immense potential of these new scientific advances, especially in agriculture. Propagating plants that contain more nutrients or are more resistant to draught or insect infestation can contribute to solving the problem of world hunger. But when we modify living structures, what risk are we posing to the balance of nature?

It's not surprising, then, that we are both fascinated by the possibilities the life sciences hold and concerned about the unknowns that await. It is inevitable that genetic engineering will be used to produce food, medicine, energy, and many kinds of products. But we will need to make our way through this new world prudently, given the serious issues that transgenesis raises.

It is primarily our familiarity with and knowledge of science that will enable us to commit ourselves to this discipline, aware of both the possibilities for agricultural improvement and the risks that we accept by attempting it. And solid scientific ground is where public debate can—and should—take place.

Scientific results and genetic engineering should not be left entirely in the hands of scientists or those who want to use these discoveries to support or further personal or private interests—there must be public governance.

This is a societal issue.

Citizens must be informed of science's progress, and what it means in terms of tangible advantages and risks. They also must be able to see how scientific evolution meshes with their values and ethics.

Take the issue of stem cells, for example. The prospect of using embryonic human cells to grow living material that can help regenerate spinal cord or other tissue is highly promising and may substantially advance medical knowledge and practice. But it also raises worst case scenarios on ethical, moral, and biological fronts. Stem cell use has therefore been the subject of great debate in a multitude of countries. Parliaments and other democratic institutions have been apprised of the issue and taken positions. Yes, in light of the potential gains that stem cells offer medicine, scientists can use them—but such use will be closely governed by rigorous research protocols enforced by public authorities.

2. GMOs today

Commercialization of GMOs is still in its infancy. In Canada, only corn, soy, and canola are grown from transgenic seed. Genetically modified grain is used for animal feed. Under current policies, no GM fruits or vegetables can be found on grocery shelves.⁸³ Nor are any transgenic animals being marketed.

We may not find products made with GMOs in our grocery baskets. But it's possible that transgenic plants are making their way into some products in the form of ingredients: lecithin from GM soy, oil from GM canola, corn starch or syrup from GM corn, and so on. Derivatives may contain trace DNA, but not necessarily the protein added by genetic modification. For example, the composition of oil from transgenic herbicide-tolerant canola is identical to that of traditional canola, since protein added by genetic modification is removed when the product is refined. The same is true for flour produced from [genetically modified] corn, which may be found in cookies. Most genetic material in the flour will be destroyed during baking or in the digestive tract. Derivatives are not considered GMOs since they cannot reproduce or transmit genetic material.⁸⁴

According to 2005 data, in Québec GMOs are present in

- 41% of land used to grow soybeans
- 44% of all land used to grow corn for livestock feed
- Nearly 95% of land sown with canola (according to an estimate)

Transgenic apples, grown on 540 hectares in Québec in 1999, have disappeared since markets did not embrace them.

83. GOVERNMENT OF QUÉBEC, *Source d'information sur les organismes génétiquement modifiés*. Online, 2006 (www.ogm.gouv.qc.ca)

84. *Loc. cit.*

A great deal of testimony presented at the public hearings warned the Commission about the risks of GMOs.

Much distrust was expressed regarding these organisms, from both environmental and health perspectives.

Participants also deplored the lack of transparency that accompanied development of GMOs and their introduction to the marketplace.

Environmental advantages are sometimes cited to justify transgenic seed use. Using such seeds lets farmers reduce pesticide use, the argument goes, because GM plants are more insect- and weed-resistant. In the U.S., farmers growing genetically modified soybeans report using 25% less herbicide than with traditional crops⁸⁵. Similarly, some data suggests that GM crops require less tillage, which helps the environment by lessening erosion and dust, increasing soil water retention, minimizing the spread of pesticides through surface water runoff, and reducing greenhouse gas emissions and soil compaction.

GM cultivars raise concerns about medium to long term environmental consequences, even though there is currently little scientific evidence of major ecological problems stemming from GMOs. There are serious fears about biodiversity, contamination of other plant and animal species, and development of organisms that resist biological controls or known pathogenic agents. In-depth exploration of these issues is needed before second generation GMOs arrive.

As for health concerns, to date it has not been possible to determine risks. Nor has it been possible to detect traces of GMOs in meat nor to measure their effect on health. In some European countries where GM crops are prohibited, growers are still able to purchase large amounts of GM grain (primarily from the U.S.) for livestock feed.

In terms of the Commission's mandate, there are three main questions to address regarding issues raised by GMO development:

1. Bioscience development, as it relates to agriculture and agrifood
2. Farmer and consumer choices
3. Labeling of GM products

3. Bioscience development

The life sciences, while not a panacea, will in all likelihood be associated with agriculture's progress and future. Genetic engineering represents a promising research path that Québec and the rest of Canada should pursue.

However, given the issues raised by these new technologies, it is absolutely imperative that rigorous rules be applied to certification and utilization of GMOs. A number of countries are taking a similarly cautious approach regarding GMOs.

From this perspective, the Commission endorses representations and opinions (including those of the expert panel of the Royal Society of Canada) that urge the Canadian government to review its GMO certification process, which clearly seems to be lacking given the issues at stake. The federal government urgently needs to assign more importance and resources to the certification procedure, particularly for products such as GMOs from new fields of science. Governments also must take action so that approval of new transgenic organisms and their use as agricultural products or livestock feed are subject to rigorous scientific evaluation of their potential impacts on the environment or human health.

85. GOVERNMENT OF QUÉBEC, *Source d'information sur les organismes génétiquement modifiés*. Online, 2006 (www.ogm.gouv.qc.ca)

The public must also be informed about scientific advances and the real or anticipated issues that they raise. All studies in support of GMO certification applications must be distributed as widely as possible for open and transparent review and criticism by the scientific community. Such information must not remain confidential. Organizations like Commission de l'éthique de la science et de la technologie must play a role in enlightening citizens and governments about transgenic issues.

Governments—especially the federal government—must fund research that systematically tracks and evaluates GMOs over time to learn their possible effects. An official environmental surveillance program should be put in place for each certified GMO.

GMOs are a complex and very controversial subject. It can be hard to hold a reasoned discussion on the topic. Farmers who have decided in good faith to use GMOs sometimes feel ostracized. Citizens, feeling uninformed, express understandable distrust in the face of the unknown.

As suggested by Conseil de la science et de la technologie, the Québec government has created a website to provide the public with reliable, validated information on GMOs. This is commendable—but more must be done. A multidisciplinary GMO committee should be created, reporting to Conseil de la science et de la technologie. This committee would concern itself not only with the scientific aspects of GMOs, but also the economic, social, and ethical issues they raise. Its mandate would be to advise the government and inform the agricultural community, municipal actors, and the populace in a completely transparent manner of various current and future aspects of GMO development and use. These types of bodies already exist in some countries, and it would be important to maintain relationships with them in order to gather and disseminate the most up-to-date information possible.

4. Farmer and consumer choice

Opinions are mixed when it comes to whether farmers truly benefit from GMO use. Given the cost of transgenic seed and related herbicide use, many observers are skeptical of real economic returns. Others maintain that GMOs facilitate farming and improve yields for growers, which could explain why they are widely used for certain crops.

There has been fear that farmers could be compelled against their wishes to grow transgenic crops if seed suppliers, in the face of weakened demand, were to decide to discontinue selling non-modified seed. Whatever the crop, the farmer's freedom of choice regarding use of transgenic substances must be preserved. The government cannot allow private enterprise to be the one to decide that only one seed variety will be made available. In the spirit of pluralistic agriculture—and to respect the public and consumers who are entitled to food produced from non-modified ingredients—the government must reach agreements with suppliers to protect crop diversity.

Public Commission hearings touched on the need to protect organic farmers against GMO contamination and to preventively designate certain areas as GMO-free. Because organic growers market differentiated products, they must be protected against contamination from adjacent GM crops. This is a complex matter involving private property issues, vested rights, and neighbor relations.

First, producers who use GM seed must respect the buffer zones prescribed by suppliers and which are part of their terms of use. For example, an area equivalent to 20% of that cultivated with GMOs must be set aside for GMO-free buffer zones. Few farmers are said to pay attention to such limits.

Second, MAPAQ must issue rules regarding the protection of organic farming. The current lack of clarity stems from a sort of laissez-faire approach whereby responsibility for any accommodation efforts and ensuing actions rests with organic growers rather than their fellow farmers.

Third, some RCMs or regions may wish to completely exclude GM crops and declare themselves GMO-free. This could be done in one of two ways.

A first way would be to have any RCM that, after conferring with farmers and citizens, wishes to declare itself a GMO-free area submit its plan to a government-appointed expert committee and proceed only after hearing back from these scientific experts. Such a designation would usually be made at the time the RCM or the metropolitan community's agricultural zone development plan is drawn up or updated.

To protect land or ecological areas against the possible effects of an involuntary release of transgenic species, the organization Nature Québec, in its brief to the Commission, recommends "dividing up land at the RCM level and establishing protected (nontransgenic) agricultural areas either on the basis of ecosystems or areas sensitive to pesticides and transgenic plants." It may be advantageous for the government to designate GMO-free control or "test" zones, using the same procedure as for designating ecological preserves.

A second way would be to designate GMO-free zones as part of the product differentiation process. Since unmodified products offer points of differentiation and competitive advantages, it would be important to be able to grow them under "GMO-free conditions." Thus groups of growers, food processors, and marketing or business development agents in areas that yield certain products could define a growing zone subject to specific GMO-related control measures. The best way to do this would be to create a "reserve appellation" type of system that differentiates products based on their origins. Food products made using specification lists that require non-GMO ingredients would greatly justify—on both the commercial and legal fronts—establishment of non-GMO zones if citizens and farmers so desire.

5. Labeling foods that contain GMOs

Noting the consumer's right to information, particularly with regard to the food they eat, numerous participants at the Commission hearings called for GMO product labeling.

If GMO labeling were applied at present in Québec and the rest of Canada, it would hardly make a difference.

Traceability would allow detection of GMO grain or its origin, but is not yet firmly enough entrenched in the agrifood chain to make this feasible. It would be nearly impossible to find a product on grocery shelves bearing the label *Contains GMOs*.

Institut national de santé publique du Québec has produced a summary on the issue. It states that “a single label placed on a product, without a prerequisite scientific demonstration of harmlessness, would put responsibility for evaluating health risks on the consumer. [...] The lack of an adequate certification process precludes an effective labeling policy that ensures product monitoring and consumer protection. Without traceability mechanisms, managing unanticipated effects and residual risks—for example, by rapidly recalling products—is impractical. Lack of traceability mechanisms makes it difficult, if not impossible, to render developers and regulatory organizations accountable to consumers.”

Citizen and consumer demands for GMO labeling are perfectly legitimate. It is hard to see how access to such information could be withheld. In the foreseeable future, one can imagine GMO labeling on all product packaging, much like ingredient lists.

Such labeling might even confer a sort of competitive advantage or, in its absence, serve as an entry barrier to certain markets. Why shouldn't Québec and Canada take a leadership role in this area?

A study conducted on behalf of MAPAQ revealed that, implemented in Québec alone, GMO labeling would be very complex and costly. Therefore it would seem essential to envision labeling on a pan-Canadian scale.

Canada needs to immediately foster conditions conducive to the general labeling of food products containing GMOs, namely

- Development of scientific techniques and measures making it possible to trace the presence of genetically modified ingredients. As FAO emphasizes, for labeling policies to work they will require standards, tests, and certification processes, along with departments to enforce them
- Generalized development and application of traceability so as to be able to detect GMOs throughout the agrifood chain
- Adoption of appropriate regulations to ensure monitoring

The Commission deems it important to take prompt action in this regard.

Recommendations

Commission sur l'avenir de l'agriculture et de l'agroalimentaire québécois consequently recommends

- 31.** That ministries coordinate their environmental interventions with farmers, attempt to harmonize their actions with those of municipal leaders, offer to work with farmers, and ensure more rigorous monitoring of compliance with environmental regulations
- 32.** That MDDEP prepare a detailed situation analysis of Québec water quality for the period 2007–2009 and periodically update it thereafter
- 33.** That any programs granting farmers property tax remissions, financial support, or income stabilization be subject to cross compliance rules, including the following requirements:
 - Respect of all environmental regulations in effect
 - Development for all farm enterprises of an agroenvironmental report with specific, maximum phosphorus, nitrogen, and pesticide target levels, updated every three years and compliant with drainage basin objectives, if any
 - Use of best farm practices for each farm, taking into consideration the crops and livestock the farm produces, the topography of its farmland, and soil quality
- 34.** That an inspector assigned by MDDEP periodically visit each farm enterprise to verify that a valid agroenvironmental plan is in place and being followed
- 35.** That protection of certain ecological sites and production of environmentally related goods be the subject of long term agreements between the competent regional county municipalities and farmers, supported by MAPAQ and MDDEP, and that such agreements provide for payment to farmers by the Québec government or concerned municipalities to compensate for lost income or to defray expenses incurred in developing environmental goods
- 36.** That the Government promote the production of biogas, particularly from agricultural and animal waste, by granting financial support to farmers' collectives or offering to buy electricity produced by their facilities on long term contracts and at rates compatible with the costs incurred
- 37.** That the Government of Québec revise its water policy with regard to drainage basins so as to
 - Better identify respective government and municipality responsibilities for water policy and drainage basin management
 - Make drainage basin management a part of its integrated vision of land management and ensure that provincial and municipal land use planning and development tools make allowance for data and requirements contained in water master plans
 - Grant adequate funding to drainage basin organizations by increasing resources from the government and municipalities

Recommandations

- 38.** That MAPAQ, farmer representatives, and others in the agrifood sector agree to a preventive action plan for animal welfare
- 39.** That Québec lead federal and provincial government efforts to have the following measures adopted with regard to genetically modified organisms:
- Allocation of special funds to research the effects that genetically modified organisms have on the environment and health
 - Strengthening of the process for certifying products that contain GMOs and conduct of a research program on the long term effects of each certified genetically modified organism
 - Access to scientific information provided during the certification process by producers of genetically modified seed
 - Signing of agreements between the Government and Québec or other Canadian seed producers so that farmers are free to plant genetically modified or unmodified crops
 - Immediate implementation of analysis and traceability measures that allow the general labeling of GM products in Canada
- 40.** That in regard to genetically modified organisms, the Québec government
- Form a multidisciplinary committee reporting to Conseil de la science et de la technologie tasked with advising the government and informing the populace on scientific, economic, social, environmental, ethical, and healthcare issues associated with genetically modified organisms
 - Specify parameters that protect organic farming against contamination from genetically modified organisms, in accordance with the laws currently in effect in Québec
 - Designate GMO-free control or “test” zones, using the same procedure as for designating ecological preserves
 - Offer municipal officials and farmers the chance to identify GMO-free agricultural zones within their agricultural zone development plans or product differentiation processes, and to identify agricultural products using a “reserve appellation” system.

Food, Health, and Consumer Expectations



10

“Let your food be your medicine,” said Hippocrates in the 4th century B.C., proof that health and food quality have long been linked. While producing enough food to avert famine has been the main worry for most of human history, the abundance in developed countries today has spawned other concerns. Many health problems are clearly connected with the quality and quantity of the food we eat. Consumer health concerns have become a leading issue for the agriculture and agrifood sector.

HEALTH CONCERNS

Obesity is the most striking manifestation of inappropriate or excessive food consumption. Public health officials in every developed country are worried about obesity. Its prevalence in Québec is soaring. In 1987, 9% of the population age 15 and older was considered obese. The rate climbed to 13% in 1998 and is 22% today, according to Ministère de la Santé et des Services sociaux (MSSS).

Obesity is associated with the development of a number of chronic health conditions, including cardiovascular disease, hypertension, cancer, and diabetes. Overweight individuals are three times more likely than anyone else to develop type 2 diabetes.

So alarming is the obesity trend that, according to Québec’s national public health director, it could lead to a situation in which the current generation of children, despite medical progress, are the first since World War II to have shorter lifespans than their parents.

MSSS estimates that obesity costs the public health care system \$550 million annually, a figure that will rise to \$1.3 billion in 2020.

There is also concern about the proven or feared effects of certain substances used to produce, process, or conserve food products. Fears are expressed about the health impacts of residues or traces of pesticides and other products, such as hormones, sometimes found in fruits, vegetables, meat, or processed foods.

Recognizing that health problems are also connected to lifestyle, notably a lack of physical exercise, the governments of many countries have adopted policies or action strategies to educate citizens about the need to adopt lifestyle and nutritional habits that promote good health. Québec, for instance, has adopted a government action plan for 2006–2012 to promote healthy lifestyle habits and prevent weight-related problems. It calls on the agriculture and agrifood sector to do its part, in particular by producing healthy food and informing consumers.

MISGIVINGS ABOUT CERTAIN FARM INPUTS

Cases of food poisoning and other incidents have made consumers suspicious. Pesticides, antibiotics, growth hormones, and genetically modified organisms are the object of obvious distrust.

1. Pesticides

Many consumers view pesticides as undesirable inputs that ideally should have no place in agriculture. Paradoxically, the same consumers want fruit that meets standards of esthetics, uniformity, and appearance that are difficult to achieve without pesticides. Farmers are nonetheless attempting to reduce their use of synthetic pesticides.

The pesticide residues still found on some products pose potential health risks. The Canadian standards defining maximum allowable pesticide residues are not as strict as standards in Europe, the United States, and Australia.

Pesticide residues in drinking water are also a concern. Since 2001, the *Regulation respecting the quality of drinking water* has required managers of water systems serving populations of 5,000 or more to perform analyses to check for pesticide contamination. Pesticide traces were detected in 54% of the 213 water supply systems analyzed between 2001 and 2004. Pesticide residues are also found in ground water, albeit at levels below the thresholds set by public health agencies.

Exposure to pesticides over long periods can disrupt the immune and endocrine systems and cause reproductive disorders. Institut national de santé publique du Québec believes that pesticide health risks in the province are low, although Québec youth are more exposed than European or American children. The Institute claims that "Caution is still warranted, as is the encouragement of measures to rationalize pesticide use and decrease exposure."

2. Antibiotics

According to Ordre des médecins vétérinaires du Québec, it is impossible from an animal health and welfare standpoint to raise animals without antibiotics. The Order also points out that "Québec has a regulation unique in Canada: all animal medicines are available by prescription only. In addition, no producer can have or administer a medication to an animal raised for consumption unless prescribed by a veterinarian."

The use of antibiotics to cure and prevent illness is a standard livestock breeding practice. However, their use as a growth factor is much more controversial, owing to the risk that microbes resistant to the antibiotics normally used to treat infections, both in animals and people, may emerge. The European Union imposed a total ban on the use of antibiotics as growth factors in animal feed in 2006. In Canada, though this animal feed process is not formally banned, it is not recommended. Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec (MAPAQ) has also monitored resistance to veterinary antibiotics since 1993, in conjunction with Institut national de santé animale and Université de Montréal's Faculty of Veterinary Medicine.

3. Growth hormones

The use of hormones to stimulate growth is authorized in Canada and the United States only for beef cattle. Growth hormones are banned in pork, poultry, and dairy cow production. Growth hormones accelerate animal weight gain, an obvious economic advantage.

A major controversy has raged over the last several years concerning the health risks to consumers posed by growth hormones. In 1995, the Commission for Codex Alimentarius, an international organization created to set and harmonize food safety standards, pronounced that five of the six available growth hormones were risk-free when used in accordance with established veterinary practices. The Government of Canada conducted its own studies in 2003 and reached the same conclusion.

In the belief that ingesting hormone residues may expose consumers to as-yet unknown risks, the European Commission has prohibited the use of growth hormones in livestock animal feed in EU countries. It also bans imports of meat from animals fed with growth hormones, especially from the United States. However, the ban was judged by a WTO panel in 1997 to be in violation of world trade rules, because it is not based on scientific evidence and thus constitutes, in the eyes of WTO, a nontariff trade barrier.

The issue is fast evolving from a scientific and political controversy associating growth hormones with human health hazards into a commercial consideration. More and more consumers are quite wary of growth hormones and increasingly seek meat from animals fed without them and certified as hormone-free. It behooves the Québec agriculture and agrifood sector to take note.

4. Genetically Modified Organisms

Fears surrounding the use of genetically modified organisms (GMOs) are very widespread. The World Health Organization (WHO) stresses that the GMOs now marketed “have all undergone the required risk assessments and are examined more carefully than traditional food to see whether they might impact health and the environment. To date, the consumption of GMOs has not caused any known undesirable health effects⁸⁶.”

The Royal Society of Canada and British Medical Association, while recognizing that no rigorous scientific study has so far shown that consuming food containing GMOs is any riskier than eating traditional foods, nonetheless believe that more research on GMOs should be conducted before they are marketed.

Here again, marketing considerations override scientific ones. Rightly or wrongly, many consumers fear the effects of GMOs on their food. These consumers are responsible for the marketing failure of some successfully grown GMO products, such as potatoes. And they want to be kept informed about trace GMOs in the products they buy.

Clearly, a product bearing a credible “GMO-free” label would enjoy a definite commercial advantage. In a world where the consumer is king, can consumer expectations be ignored?

86. WHO, *Modern Food Biotechnology, Human Health and Development: an Evidence-Based Study*, June 2005

MEASURES TAKEN BY THE AGRIFOOD INDUSTRY

In the wake of the collective marketing system's deployment and the spread of cooperatives, farmers adopted quality control methods. Dairy producers pioneered quality assurance long before current risk management systems were created.

Today, farms employ a variety of quality control and risk management systems. In Québec, 98% of the pork produced comes from farms that have introduced the Hazard Analysis and Critical Control Points system (HACCP). This international system uses scientific data to ensure food safety. It is estimated that 30% of poultry farmers and 20% of beef cattle producers have adopted it. The process of implementing HACCP standards is under way in several agriculture areas, especially dairy.

A very high percentage of processing companies have adopted very strict health monitoring systems. Most of them use HACCP. Conformance with the HACCP system is even becoming an entry requirement for some markets. Retail stores have their own inspection and quality control system, which is also regularly checked by public inspectors.

1. Traceability

Traceability systems track the meat from an animal or other product ingredients from production facility to consumer table, throughout the food processing and distribution chain. In cases of contamination, traceability systems can track the problem back to the source.

In 1998, the Québec government worked with the agriculture and agrifood industry to develop and establish a permanent system for identifying and tracing farm products. A not-for-profit organization, Agri-Traçabilité, was created in 2001 to manage the animal identification and traceability system. Under the regulation enacted for that purpose, it has been mandatory since 2002 to identify cattle and track their movements from their point of origin to the slaughterhouse. Sheep and lambs have been subject to the same requirements since 2004. The pork industry is expected to adopt this system in 2008, in conjunction with the Canadian Pork Council. Other sectors are also initiating traceability processes, including cervid, table egg, and poultry producers as well as the entire plant crop sector.

Phase one in the deployment of the Québec traceability program mainly concerns animal movements from farm to slaughterhouse. There are plans to complete the circuit and trace beef from the slaughterhouse to retail outlets and restaurants. The traceability of other products will follow.

In its brief to the Commission, Alliance de la transformation agroalimentaire emphasized the need to expand the traceability system. According to the Alliance, "With the recent mad cow crisis, the food industry has understood the importance of traceability. What's more, out-of-province trade will spur food chain professionals to consider traceability not just a crisis management tool but, in some cases, a commercial requirement."

Food distributors testified at Commission hearings about how complex the widespread adoption of traceability systems would be and the need to work with commercial partners, especially in Canada. Metro's representative had this to say:

MAPAQ had planned to set up a system for all types of meat. After lengthy discussions with representatives of our industry, it opted for a more realistic regulation targeting beef only. As the North American agrifood industry becomes more integrated, the issue of food traceability cannot be dealt with on the scale of Québec, since that would have a significant impact on sources of supply. Our sources are located not only in Québec, but also across Canada and abroad, which means our business partners would be unable to respond in the short term to the type of regulation planned. It would be enormously complicated—nearly impossible even without endangering our meat supply—to extend traceability to all types of meat at this time without having discussed it first with all our business partners. Doing anything else could have serious repercussions on our ability both to import and export.

Québec leads several provinces and some countries in the area of traceability. Others across Canada have sought out its expertise. It is very much in our interest to extend our lead and base our product differentiation and marketing strategies on a credible traceability system. However, for practical reasons, it is to Québec's advantage to take the lead and promote a harmonized Canadian system.

2. Epidemic prevention and control

The huge impact in Québec and right across Canada of the discovery of a single animal afflicted with bovine spongiform encephalopathy (mad cow) on an Alberta farm in 2003 raised public awareness of the importance of certain animal illnesses. Concerns voiced about the possible risk of an avian flu pandemic have heightened our sense of vulnerability.

Canada and Québec have set up complex surveillance, veterinary alert, and rapid intervention systems to respond to a zoonosis or epidemic. On the federal level, the system relies on the Canadian Food Inspection Agency and Canadian Animal Health Surveillance Network. In Québec, Centre québécois d'inspection des aliments et de santé animale, a MAPAQ agency, Réseau d'alerte et d'information zoonitaire, Institut national de santé animale, and Université de Montréal's Faculty of Veterinary Medicine are the surveillance pillars.

Scientific expertise and continuous surveillance are essential to the effectiveness of such a system. However, care must be taken not to go overboard and penalize other activities, even where prudence dictates preventive measures. In response to the avian influenza threat, Québec adopted the *Regulation respecting the confinement of captive birds*, which required producers to avoid any and all contact between farm-raised and wild birds. The representative of the firm L'Oie Naudière noted at Commission hearings that "No other authority on the planet adopted such restrictive preventive measures."

While strict measures were taken with respect to a risk factor—the contamination of farm-raised birds by migratory ones—little emphasis was placed on periodic inspections of livestock farmers by a veterinarian, a measure that could prevent more serious risks.

Ordre des médecins vétérinaires du Québec pointed out at the hearings that “In several regions and for some species, preventive medicine requirements are wholly inadequate. Veterinarians do not spend as much time on farms, creating a more fragile agricultural system, especially if a serious illness breaks out.”

HEALTH AS A KEY MOTIVATOR OF FOOD CHOICES

1. A general trend in consumer demand

Consumers first showed their interest in healthy eating by seeking to cut back on the most harmful ingredients. They particularly spurned trans fat, cholesterol, salt, and sugars, due to their obvious connection with cardiovascular disease, diabetes, and obesity.

Consumers also began looking for foods that, either naturally or as a result of processing, contain substances considered beneficial to health, such as antioxidants, fiber, probiotics, and omega-3s.

The agrifood industry has adapted to consumer expectations and changed the ingredients in processed products, especially their fat, saturated fat, trans fatty acid, salt, and sugar content.

A Confederation of Food and Drink Industries study in the European Union found that one in three agrifood firms had revised the composition of at least half of their products in terms of these ingredients. In Canada, the federal government has set up Fonds de développement de la transformation alimentaire, which provides financial support to agrifood companies so that they can conduct studies, tests, and analyses to alter the basic ingredients in processed food products.

Besides reducing or eliminating ingredients considered undesirable, many companies have sought to include ingredients associated with a proper diet and good health. Substances or natural ingredients are added to a growing variety of products for health purposes, and more and more products make health claims about existing ingredients. Functional foods and nutraceuticals are also poised for increasing success.

Consumers are more and more sensitive to the nutritional content of food. In 2004, a major survey in Québec found that the average consumer made a health risk-related change in eating habits 2.84 times a year. In 2007, such changes averaged 3.44 per person⁸⁷. This means that consumers permanently replaced more than three food products with substitutes known to be better for their health.

The multinational Danone, which is well established in Québec, explained in its brief to the Commission how it viewed its contribution to health: “For Danone, promoting health is not just a matter of reducing the proportion of an ingredient to create a more nutritionally balanced product. We want our products to be a benefit to the organism, for example, to promote growth or improve certain functions of the human body... We call this ‘active health’.”

It is well known that concern for health increases with age. Various Ipsos-Reid surveys between 2004 and 2007 show that Canadians age 50 and over are more concerned about numerous criteria when buying food, such as freshness; nutritional value; salt, sugar, and carbohydrate content; and the number of vegetable servings provided. By 2016, 40% of the Québec population will be age 50 or over.

Many observers believe health concerns will be one of the main vectors of change and growth in the agriculture and agrifood sector. Québec is already well positioned on several fronts to capitalize on the health trend. Though the province cannot easily compete with certain mass-produced products that enter our markets freely, Québec can set itself apart through a system of farm products recognized for their contribution to healthy eating and general health. The sector should build on its research and development capability and on very strict traceability and safety rules.

2. How the agrifood sector is expected to contribute to health

Admittedly, it would be a mistake to downplay individual responsibility for food choices. Obesity is a personal matter at the same time that its extent makes it a public health issue. In a brief to the Commission, Coalition québécoise sur la problématique du poids borrowed the following observation from an official WHO document: “According to WHO, such fast and widespread growth in obesity is hard to put down to individual factors... It is a far-reaching social and public health problem that calls for environmental, social, and political solutions.”

We cannot disregard the considerable influence on food consumption of the entire environment created by the agrifood industry and the promotional world around it.

Food processing companies have a special responsibility for health issues. In today’s fast-paced world, fewer and fewer people cook. The use of processed foods is now common.

87. ISA (a management and information consulting firm), *Survey on the food concerns of Québec consumers*, 2007

Canadians bought seven times more precooked dishes in 2001 than in 1976. Unless companies reduce the sugar and fat content of their processed products, it will be very difficult to check the spread of obesity. Gradually scaling back portion sizes is also important.

Food processors appear to draw little on the expertise of dietitians and other food and nutrition professionals. The two sides need to work together more closely. The Commission urges universities that train future specialists to adapt their curricula to the needs of the food processing industry. Food professionals should expand the services they offer to include food processing, in order to develop new or improved Québec food products known for their health benefits.

Agriculture and agrifood stakeholders are also strongly urged to participate in the government action plan to promote healthy lifestyles and eating habits. They can help promote healthy eating by broadening their product lines, attractively presenting and advertising the healthiest foods, and providing clear consumer information.

The availability of healthy foods at affordable prices, especially in low-income neighborhoods in big cities, was also discussed at the hearings. A study by Direction de la santé publique de Montréal published in 2006 found no or very limited availability of fruits and vegetables within walking distance, or a three-kilometer radius, for 40% of Montréal residents. This situation calls for action on the part of retail distributors.

In recent years certain organizations with ties to the social economy have taken the initiative to fill this need. The Commission applauds this community action, which improves access in disadvantaged neighborhoods to foods that are part of a healthy diet. These organizations deserve the support of food distributors and of MAPAQ.

PRODUCT LABELING

An international, voluntary guideline/standard exists that is recommended by the Commission of Codex Alimentarius, created in 1963 by FAO and WHO. The Canadian Codex Alimentarius Commission uses it as a reference in carrying out its important role in food standardization, notably in the area of labeling.

The Canadian Food Inspection Agency is responsible for product labeling. The labeling of nutritional content is mandatory for most products in Canada. Information about content, as well as nutritional and health claims, is presented in a uniform manner country-wide.

1. Nutritional and health claims

Nutritional claims are optional phrases such as “cholesterol-free” or “low calorie,” and are regulated by the federal government. The latter makes sure that claims are used in a consistent manner and are not misleading. Consumers must keep a sharp eye out, because a low-cholesterol product, for example, may be high in sugar. Likewise, the claim “50% less salt” on a bag of chips simply means that the chips have half as much salt as other similar products, which may be very high in salt.

Health claims link products more closely to health. An example is a sentence such as, “A healthy diet that includes a variety of fruits and vegetables can help reduce the risk of some types of cancer.” Health Canada established health claim guidelines in 2003 requiring that claims be based on recognized scientific data. *The Food and Drug Regulations* list the health claims that are authorized.

Deciding which information to allow can be controversial, as Danone Canada noted at the Commission hearings. “Clearly, healthy growth depends on the government allowing, even mandating, transparent, responsible communication of information from processors to consumers. It strikes us as paradoxical that the products we make based on the expertise of our Daniel-Carasso research center, which are recognized as contributing to good health, cannot be presented transparently, while the natural health product (NHP) sector enjoys a more permissive regulatory environment.”

Nutritional and health claims convey only a partial picture. Although regulated by the federal government, such claims are touted through subtle or aggressive marketing techniques that can draw consumer attention away from the product’s actual nutritional value.

A number of Commission hearing participants said nutritional and health claims were incomplete and hard to interpret.

Ordre professionnel des diététistes du Québec maintains that “Most people cannot properly grasp all the information on labels and packaging.” Some advocate a simple color code system—green, yellow, and red—to indicate that the product is highly recommended, somewhat recommended, or not recommended at all in terms of health. Conversely, others want more complete information concerning allergens, GMOs, antibiotics, and production methods or manufacturing processes.

It is tough to reconcile the views of those who want limited, easy-to-understand information and those who, citing consumers’ right to know, want to considerably lengthen the list of data available on packaging or products themselves.

Labels are not the only way to inform consumers. There is a limit to what they can accomplish. To be useful, information must be easy to understand, uniform, and consistent.

The European Commission is reviewing regulations for food product labeling. It is debating the type and number of nutritional ingredients that should be listed on labels and rethinking the question of which information must be included on the front of packages. Canada should keep a close eye on any changes, because the Europeans often set the standards that others subsequently adopt.

The Québec government should also act to meet the needs of that segment of the public eager to learn more about the most appropriate food choices for good health. It is already a partner of Extenso, a human nutrition reference center backed by food and health professionals under the direction of Université de Montréal. Among other services, the center operates a website to provide the public and media with information on healthy eating. The Commission urges the government to increase its financial support for this reference center and to encourage partner organizations to develop a call center on healthy eating as a companion resource. These information centers would provide simple, practical, factual information about the healthiest farm products, ideally from Québec, for the current season. We must serve people who want more than the perfunctory, technical information provided on food product labels. The Ontario government has set up such a phone service.

It is also worth mentioning the excellent work done by PasseportSanté.net, a portal funded by the Lucie and André Chagnon Foundation and run in cooperation with Université de Sherbrooke and the Nutraceuticals and Functional Foods Institute of Université Laval. Its mission is to offer the public practical, reliable, and easy-to-understand information and solutions on health promotion, illness prevention, and the proper use of alternative medicines in conjunction with classic medical treatments.

PRODUCT REGISTRATION

The Canadian government is responsible for registering and authorizing new products such as pesticides, hormones, antibiotics, and GMOs after determining that they present no risks to health or the environment. Manufacturers must also conduct tests and scientific studies that prove the product is trustworthy.

In the case of pesticides, it is the Pest Management Regulatory Agency, which reports to Health Canada, that is in charge of the approval process. Canada's Commissioner of the Environment and Sustainable Development criticized the federal government's attitude toward approval in a report published in 2003. She wrote in particular that "...the federal government is not adequately ensuring that many pesticides used in Canada meet current standards for protecting health and the quality of the environment. [...] We are concerned about the heavy and repeated use of temporary and emergency registrations.⁸⁸"

The federal regulatory agency also takes its time analyzing new products. The Commissioner of the Environment and Sustainable Development noted that one consequence of this was a lack of "timely access to new, possibly safer products [than existing ones]—a key concern for farmers."

At Commission hearings, the PRISME Consortium also criticized the slowness of the Canadian registration process and explained the problem it creates for certain Québec farmers this way: "We are legally prohibited from using certain anti-pest products. This is true of several recently marketed weed-grass control products our U.S. competitors use and which we have no access to. It is also true of Neem, whose biological effectiveness has been proven and which we cannot use even though the product has been approved in the United States and several European countries. So we are faced with a paradox: Québec consumers can eat a vegetable treated using recent weed-grass killers or Neem—provided that it wasn't grown in Québec."

BORDER INSPECTION AND CONTROL

Québec and Canada are known for the high food safety and health standards they impose on food production, distribution, and consumption facilities. A follow-up survey on strategic issues conducted for Agriculture and Agri-Food Canada in August 2007 found that 84% of Canadians have confidence in the "safety of food products in Canada."⁸⁹

A number of people who testified at Commission hearings brought up the fact that stores in Québec carry food containing the residues of chemicals banned in Canada, as well as meat from animals fed using chemicals not authorized for livestock production in Canada because of their health hazards. In a joint brief to the Commission submitted by the professional associations for veterinarians, chemists, agrologists, and dietitians, the following cases were reported:

- Beef products from cattle fed flour containing specified risk materials, to be banned in Canada effective July 12, 2007, to eradicate bovine spongiform encephalopathy, are imported from the United States and distributed to Québec consumers.

88. OFFICE OF THE AUDITOR GENERAL OF CANADA, *Report of the Commissioner of the Environment and Sustainable Development*, 2003

89. The survey also showed that 97% of Canadians think that *ensuring food safety* should be a scientific research priority.

- Pigs treated with carbadox, an antimicrobial drug used on piglets and banned in Canada since 2001, are still imported from the United States.
- Milk protein continues to be imported from the United States, despite the fact that it may come from a cow treated with a growth hormone banned in Canada, bovine somatotropine.
- Honey from China that may contain residues from chloramphenicol, an antibiotic whose use in livestock for human consumption is banned in Canada, can be found on supermarket shelves in the province.
- Horticultural products come from farmland fumigated using methyl bromide, a powerful pesticide officially classified by the UN in 1992 as harmful to the ozone layer and whose use in Québec, under the Montreal Protocol, was to be eliminated by 2005 at the latest.

The above situations are totally unacceptable. The federal government must better control imported foods at the border, especially when it has information or serious reasons to believe that foods crossing the border may contain harmful trace substances or ingredients. More thorough and more regular inspections are needed. The federal government even has the power to conduct inspections in the exporting countries, with which it can sign food safety agreements. Such measures are perfectly in keeping with international trade rules.

Food importers also bear some responsibility for the situation. The Canadian Food Inspection Agency stipulates that “It is the responsibility of the importer to ensure that products meet all requirements of Canadian legislation (federal, provincial, and municipal).” Importers must therefore require their foreign suppliers to guarantee that the products imported comply with Canadian food safety regulations.

We cannot have two food safety standards, one that applies only to products produced in Canada, the other for everything else. Not only does this fail to protect consumers, it is unfair to Québec food producers and processors, who bear the added production cost of high food safety standards.

Many participants at Commission hearings expressed a desire for Canada and Québec to introduce border control measures to enforce imported farm product reciprocity rules that take into account not only crop protection criteria, but social and ethical standards. They advocated refusing entry to or taxing agricultural products from countries where environmental standards were too lax, where child labor was tolerated, where wage conditions were plainly unacceptable, and so on.

No country may legally apply such criteria to imports—doing so would invite immediate and severe international sanctions. However, past experience has shown that citizen and consumer action can at times change the purchasing policies of major retail chains. Some major companies have stopped sourcing their goods from countries with documented instances of child labor.

Recommendation

Consequently, Commission sur l'avenir de l'agriculture et de l'agroalimentaire québécois recommends

- 41.** That the agriculture and agrifood sector make health a core focus of its growth and that the Québec government's new agricultural policy focus on general health and healthy eating goals. To this end, that the government
- Encourage the development of differentiated Québec products certified to be grown/raised free of synthetic pesticides, growth hormones, or antibiotics used as growth factors
 - Develop strategies that encourage researchers and the agricultural and agrifood sector to minimize the use of synthetic pesticides and growth hormones
 - Take the lead within federal and provincial forums to ban the use of antibiotics as growth factors in Canada
 - Provide incentives for the entire agrifood industry to complete its deployment of quality control and risk management measures, so as to meet the highest food safety standards
 - Accelerate traceability system deployment and urge the federal government and other provinces to do the same
 - Support processors in their research, innovation, and marketing efforts to develop food products that are good for health
 - Invite professional dietitian associations and universities to offer services and training more finely attuned to the needs of food processing companies and aimed at helping processors develop and market differentiated food products recognized as being part of a healthy diet
 - Provide resources to research institutions and tax credits to interested private enterprises to promote the development of functional foods and nutraceuticals
 - Solicit the agriculture and agrifood sector's active participation in the implementation of strategies and action plans to promote healthy lifestyles and eating habits

Recommendation

- Support and promote the development of the Human Nutrition Reference Center so that it may extend its online services and put in place a call center on food and health, to offer simple, factual information on both the healthiest food choices and on specific foods and food in general
- Urge the federal government to
 - Begin revising the food product labeling system, to provide consumers with even simpler, clearer, more relevant information about the nutritional content of agricultural and food products
 - Strengthen the approval procedures for genetically modified organisms and new products used as agricultural inputs
 - Halt the import into Canada, through more rigorous food inspection, of products containing residues banned in Canada or meat from animals fed substances banned in Canada because of their health risks
 - Ensure that Canadian food importers fulfill their responsibilities to guarantee the safety of the food they are bringing in from other countries

The Protection of Agricultural Land and Regional Development



11

The protection of agricultural land and rural community vitality were central to the concerns expressed by many participants in regional and provincial hearings held by Commission sur l'avenir de l'agriculture et de l'agroalimentaire québécois

The Commission selected three statements regarding these issues that it felt were the most significant and reflected the most compelling observations:

- Agricultural land is a collective heritage that continues to be subject to severe pressure, particularly in periurban areas. We must therefore maintain and even strengthen protection measures in order to preserve land dedicated to sustainable agriculture.
- Outside periurban areas, we must ease the *Act respecting the preservation of agricultural land and agricultural activities* (APALAA) in order to promote the diversification of agricultural activities with a view to ensuring the dynamic use of rural land.
- Given the multifunctional nature of the agricultural and agrifood sectors, their development potential must be viewed as part of a broad and participatory land use planning and development exercise.

LEGISLATIVE FRAMEWORK

Québec's agricultural land covers 63,049 square kilometers, or 3.8% of the province's total area. High potential category 1, 2, and 3⁹⁰ land represents only 2% of Québec's area. Arable land is a special type of heritage subject to incessant pressures worldwide. With increasing urbanization and industrialization, agricultural land is giving way to these new uses, and its loss is generally irreversible.

For this reason, many governments are adopting legislation or special measures to protect and enhance agricultural land.

The Québec government has sought to curb the use of the province's best agricultural land, particularly in periurban areas, for residential, commercial, and industrial purposes, primarily by adopting the *Act to preserve agricultural land* in 1978. This act was revised in 1996 and became the APALAA. In a nutshell, this act seeks to

- Identify and protect within the limits of virtually all Québec municipalities a permanent agricultural zone familiarly known as the "green zone," in order to help ensure a sustainable supply of land for agricultural practices as part of Québec's agricultural heritage
- Entrust an independent commission with reviewing applications from the municipal sector or private promoters aimed at including or excluding portions of land in the green zone or carrying out non-agricultural activities in this zone
- Ensure the protection and development of agricultural activities and farms

The APALAA must be administered in coordination with the *Act respecting land use planning and development*, adopted in 1979 and subsequently amended several times. This act entrusts regional county municipalities (RCMs) and the metropolitan communities of Montréal and Québec City with the responsibility of drawing up land use planning and development plans, important documents that set guidelines for the physical organization of land. These plans help integrate the concerns and expectations of municipalities, the government, and its agents into a regional vision for economic, social, and environmental development.

90. Classification according to the *Canada Land Inventory*.

Master plans—a key tool for municipal officials in planning land use—are normally revised every seven years⁹¹ in accordance with government policies. As regards agricultural land, these policies remind municipal officials of the need—enshrined in the act—to promote primarily agricultural use of land in the green zone, as well as the peaceful coexistence of agricultural and non-agricultural activities. They also direct RCMs to adopt development plans for their agricultural zones.

Apparently, not all RCMs assign the same importance to “updating” their master plans. In June 2007, only 45 of the 86 RCMs with agricultural land had put into effect revised master plans consistent with government policies. These plans, which should be updated every seven years, have actually been under revision since 1992–1993 (fifteen years).

In both their design and implementation, the two abovementioned acts have given rise to divergent approaches and even conflicts. In exercising their land use planning authority, RCMs and metropolitan communities must take into account that activities other than agriculture are prohibited or restricted in permanent agricultural zones. While successive governments have justified such curtailments as serving the greater good by protecting agricultural land and activities, many municipal representatives have seen it as a usurpation of their land use planning powers. Fédération québécoise des municipalités believes the government policies amount to “a veritable discretionary veto on decisions by local elected officials regarding land use in their communities, tantamount to being under government trusteeship.”

For more than 25 years, Québec agriculture has thus existed under a legislative system aimed respectively at protecting land and ensuring land use planning. Succinctly, we can make following observations⁹²:

- The total size of permanent agricultural zones has more or less stabilized since 1992.
- Within the green zone, a total area of 6,512 hectares was nevertheless earmarked for uses other than agriculture between 2001 and 2006; approximately 40% of this area was used by public utilities or for energy, transportation, or communications infrastructures.
- Demands continue to be made on agricultural land in periurban areas, particularly for residential use (Commission de protection du territoire agricole du Québec [CPTAQ] receives nearly 3,000 applications a year, nearly half for residential projects).
- CPTAQ decisions may be appealed, first to Tribunal administratif du Québec, then to Superior Court, adding to the cumbersomeness and legal red tape involved in managing agricultural land. Certain observers believe this might even detract from the objectives of the act adopted to protect agricultural land.
- In Québec as a whole, only 53% of agricultural land is occupied by active farms. While this percentage is higher in some regions (like Montérégie, where it is 74%), it is barely 30% in other neighboring regions.
- Current APALAA management practices hinder the emergence of new forms of agriculture requiring less space, as CPTAQ enforcement rules clearly discriminate in favor of more traditional production methods that use large land areas.
- Nearly half of the master plans of RCMs with agricultural land have not yet been revised—15 years after their initial adoption.

91. The *Act respecting land use planning and development* stipulates that at the end of a five-year period, RCMs and metropolitan communities must update their land use planning and development plans, or master plans, a task that generally takes two years. This is why we speak of these plans being updated every seven years.

92. Further details can be found in the Forget Aubin report produced at the Commission's request and entitled *L'évaluation des régimes de protection du territoire et des activités agricoles et d'aménagement du territoire*, July 2007.

THE PROTECTION OF AGRICULTURAL LAND IN PERIURBAN AREAS

1. Agricultural land and urban sprawl

Cities everywhere are continuing to expand. In Québec, the tendency to move to the outskirts of cities has given rise to extensive urban sprawl for a population of seven million. Today, even though the economic and environmental costs of urban sprawl are well documented and Québécois largely support the objectives of the Kyoto Protocol on greenhouse gases, the attraction of living in the country has not wavered. Agricultural land and immediately adjacent areas are affected by this longing to move beyond urban boundaries.

This desire can throw off the socioeconomic balance in the agricultural sector. First, the dividing up of agricultural land into residential lots causes the price per square meter to rise far beyond the commercial value of land used for agricultural production. Second, farmers—who are already the minority in rural communities—are completely marginalized by the influx of urbanites. Simply put, if the laws of supply and demand or respective demographic weight were left to govern urban sprawl, agriculture would not stand a chance.

The development of shopping malls and industry at the outskirts of cities follows a similar dynamic and is amplified by the municipal tax system, which depends heavily on property tax. One of the few ways to increase tax revenues is to attract new taxpayers, and stores and industries are generally the best way to do so. And since tax revenues are not shared by municipalities in the same region—except for the cost of a few common services—the vast majority of municipalities compete to attract these property tax-generating complexes, even if regional land use might be better served if the project were built in the neighboring locality. The *Act respecting the preservation of agricultural land* is aimed precisely at avoiding this kind of progressive elimination of agricultural land in Québec through conventional approaches to development.

These issues are especially acute near large cities. Effectively summarizing many concerns expressed at Commission hearings, Professor Claude Marois of the Geography Department at Université de Montréal stated that urban pressures are always present and the protection of agricultural land “is more vital than ever for the survival and promotion of periurban agriculture and the conservation of built and landscape heritage.” This observation is repeated by Caucus des municipalités de la métropole,⁹³ which believes that “the revision of urban boundaries through various encroachments in the permanent agricultural zone is a major concern with respect to the spatial organization of land.”

People need to realize how much is wasted when towns and cities expand into the agricultural zone. Saying a residential property has to be built on the best land in Québec because there is nowhere else to build in the municipality is an argument that no longer holds water. One cannot claim to support sustainable development while taking this approach to land use.

It should be noted that metropolitan communities and virtually all municipalities and RCMs now recognize the need to tighten their urban boundaries and densify development. We would also note that 37% of the total area of rural municipalities surrounding towns in the metropolitan communities of Montréal and Québec City is not used for agricultural or forest purposes and can therefore be put to other uses. For example, in its draft land use planning and development plan submitted for government approval, Communauté métropolitaine de Montréal clearly recognizes that the current urban boundary is inclusive enough to meet development needs for the next 20 years, given available space in the non-agricultural zone.

93. Includes 63 municipalities located in Communauté métropolitaine de Montréal

2. Agricultural land, a shared heritage

Commission sur l'avenir de l'agriculture et de l'agroalimentaire québécois wishes to present three major considerations regarding agricultural land in the periurban areas where Québec's best arable land is located:

- Agricultural land belongs to everyone and must be protected on behalf of all Quebecers.
- Decisions regarding the inclusion or exclusion of lots in the permanent agricultural zone should be made by a neutral administrative body protected from the pressures of promoters and from political or economic interests.
- The objectives of the *Act respecting the preservation of agricultural land and agricultural activities* and the principles enshrined in this act are still fully relevant.

Because Québec's population is increasing only slightly and is expected to decline in the foreseeable future, it is highly reasonable to impose limits on urban expansion. Doing so is imperative, not only in order to protect agricultural land, but also to limit the known or hidden costs of urban sprawl.

But as long as promoters can hope for a favorable rezoning decision by exhausting the arsenal of procedures, they will not rest until they have obtained agricultural land they consider ideally situated for new residential or commercial buildings.

The current method for reviewing green zone exclusion applications—handled on a case-by-case basis by CPTAQ—creates a dynamic that gives hope to those with the patience to wait and the means to foot the bill. As a result, private interests can insidiously prevail in the long term over collective interests in preserving Québec's agricultural heritage. Mr. Bernard Ouimet, who served as CPTAQ chair for ten years, asserted at the provincial Commission hearings that this approach is, “practically speaking, a time-consuming and expensive process that does very little to resolve an often very simple residential development problem. In comparison with collective review, [the case-by-case review of applications adds] a legal dimension to the decision-making process [that] seems rather **archaic**.”

It is therefore critical that we put an end to the case-by-case review of applications from municipalities, RCMs, and metropolitan communities to include or exclude land in the green zone.

That being said, the permanent agricultural zone is not unchanging, and its current boundaries are not perfect—they, too, can change over time. We must therefore develop a system for evaluating applications for the inclusion or exclusion of certain land in this zone.

The Commission believes it is of the utmost importance that **applications to change the status of land already included in the permanent agricultural zone** be reviewed within the overall framework of master plan revision by RCMs and metropolitan communities. This is especially critical for agricultural land in periurban areas. Applications to exclude lots from the green zone should be reviewed only within this framework.

This is the only way to ensure a comprehensive overview of land use in the municipalities concerned and to situate green zone space in its overall environment. This approach is also the most respectful of municipal land use planning responsibilities and will prevent the case-by-case review of the many exclusion applications submitted by municipalities, RCMs, and metropolitan communities in support of development projects, most often residential in nature. Furthermore, having the competent municipal authorities be the ones to apply to CPTAQ, and having them do so from a collective perspective, is without doubt the best way to ensure the long term protection of agricultural land. In the three metropolitan areas, the plans developed by the metropolitan communities (not by each RCM that belongs to communities) would set out broad guidelines for land use, including within the green zone, providing the broadest possible vision of land using plan for the evaluation of applications involving the agricultural zone. Concretely, this means that municipalities or regional county municipalities that are part of metropolitan communities should, before submitting applications to CPTAQ to include or exclude land, ensure that their applications are in accordance with their metropolitan communities' master plans. The same holds for municipalities applying to CPTAQ—the zoning amendments they are seeking must be in keeping with the master plans of their RCMs.

Several RCMs commented on the value of this approach to the Commission. One of them—the Matapédia RCM—indicated that “this approach shows that RCMs can be entrusted with additional responsibilities without departing from the objectives of the act.” In this respect, this RCM agrees with Union des producteurs agricoles (UPA), which in commenting on this comprehensive approach stated, “Recognizing agriculture in the land use plan as a full-fledged component of the regional or metropolitan system would help us move from a mindset of waiting and speculation toward a mindset of development and enhancement of these spaces.”

Individual applications could no longer be presented to CPTAQ for review on a case-by-case basis.⁹⁴ The only exceptions to this rule for collective review would be new economic projects of particular significance, e.g., the expansion of a business at the boundary of the agricultural zone or the development of a substantial public facility. These exceptions would continue to be subject to an application process and individual analysis by CPTAQ.

The Commission stresses the public nature of agricultural land. Applications to use this land for purposes other than agriculture and related activities must therefore be submitted to a body that is protected from various pressures and risks. No organized group should be in a position to impose its views on CPTAQ or bypass it through legal proceedings. In the overall review process for applications from municipal bodies, CPTAQ would hold the consultations it deems necessary but would retain complete flexibility in handing down decisions. And it should no longer be required—as it is now—to obtain UPA approval. (We will get back to this point.)

94. It should be noted that our discussion here pertains to applications to change green zone boundaries. In the next point we will look at the activities authorized within the green zone itself.

Recommendation

Consequently, Commission sur l’avenir de l’agriculture et de l’agroalimentaire québécois recommends

- 42.** That Québec agricultural land be treated as a collective heritage subject to special protection measures in order to ensure the long term survival of agricultural activities with a view to sustainable development. To this end,
- That issues regarding the exclusion or inclusion of land from the permanent agricultural zone continue to be handled by CPTAQ, an independent administrative body
 - That the Minister of Municipal Affairs and Regions instruct metropolitan communities and RCMs that they must respect the December 31, 2009 deadline for submitting their revised master plans, and instruct the government to approve these plans no later than May 30, 2010
 - That as of June 1, 2010, any application for the inclusion or exclusion of a portion of land in the permanent agricultural zone submitted by an metropolitan community, an RCM, or a municipality be reviewed by CPTAQ further to revision of the master plan and that the *Act respecting the preservation of agricultural land and agricultural activities* be subsequently amended
 - That as of June 1, 2010, CPTAQ no longer accept individual applications for the exclusion of lots in permanent agricultural zones for residential purposes

AGRICULTURAL LAND AND RURAL REVITALIZATION

Just as mechanisms for protecting agricultural land in periurban areas must be consolidated and even reinforced in order to counteract the effects of urban sprawl, it is crucial that certain farmland protection rules be relaxed in rural communities located outside major urban centers.

The dynamic use of rural land in Québec requires a fresh approach that would not only allow but also encourage new types of agriculture and activities complementary to agriculture on and near agricultural land.

1. Farms of all sizes

The APALAA was put in place in order to protect arable land against land speculation. It therefore seeks to promote what at the time was considered vital to farm profitability—medium and large size farm operations. This explains why the lawmaker set up obstacles to land subdivision.

But the fact that barely half the green zone is occupied by active agricultural operations and that this situation has changed little over the past 15 years suggests that agricultural potential is being underutilized. In a way, this shows that having only medium and large size farms is an overly exclusive approach that ultimately leads to a reduction in the farming population, especially considering how hard it is for young farmers to get started in the business. Moreover, this development model is inconsistent with the need to diversify agriculture.

Each time a farm is purchased by the neighboring farmer rather than passed on to a new one, the rural workforce declines. Without preventing these transactions, we must promote the preservation of an optimal number of farms to ensure the suitable use of Québec land. Comments to the Commission by the municipality of Saint-Marcel-de-Richelieu were telling in this respect. In this locality, even though the average farm size is higher than the Québec average, the municipality has the lowest economic development index in the RCM. Clearly, even on Québec's best arable land, choosing one agricultural development model over another can lead to rural devitalization. The Desjardins Group notes that "the increasing concentration of agricultural production is harming certain regions, which are gradually being stripped of their vitality." The agricultural and agrifood sector alone cannot staunch the loss of population in rural regions and localities, but it can and must be part of the solution to slow this trend observed in recent decades.

Many participants in the hearings deplored the inflexibility of "regulations" on the protection of agricultural land that make it difficult or impossible to bring a small farm into operation, even when the promoter is clearly qualified to manage the facility and the project seems viable, despite its small size. It should be recognized that just because certain market, organic, or startup farms do not require large tracts of land, they are no less valuable or profitable.

Furthermore, it should be possible in agriculture—as in other fields—to “start small” and grow over time rather than begin with a facility already at a mature stage of growth.

Given the price of milk quotas, a 50 cow farm (the Québec average) goes for over \$2 million. How many people without a family inheritance can afford to start a business that big? Forum jeunesse Estrie claims that “many young people wish to work in rural communities in smaller, specialized businesses.” The Commission received numerous other comments on the difficulties young farmers and workers face when seeking to build a personal residence on the property where their farm businesses are located, given the assessment criteria used by CPTAQ.

In the same vein, projects that combine food production and processing, projects aimed at supplying a regional market or centered on a highly specialized niche, and projects such as riding schools, rural restaurants, rural inns, and other groundbreaking initiatives call for a different and complementary use of agricultural land.

We must also welcome profitable projects presented by promoters who cannot or do not wish to operate full-time farming outfits, as these projects represent a concrete contribution to community development. Considering that more than 60% of farm household income comes from outside sources (particularly because farmers’ spouses increasingly work off the farm), it seems rather excessive to require that new farmers live solely off farm revenues.

Economic diversification and dynamic land use are largely conditional on encouraging and supporting these many initiatives that are currently difficult to carry out. It is understandable that CPTAQ should exercise caution on projects involving new, generally unproven agricultural models that may require the subdivision of existing agricultural land. Once the decision has been made to authorize construction of a residence for a new farmer who has been granted usable farm area, it is hard to reverse gears. However, these risks can be managed by thoroughly analyzing business plans. In particular, the projects submitted must be genuinely viable and developed by promoters with the proper training to carry them out.

With a view to promoting multifunctional agriculture, we must also consider complementary activities, particularly those that help protect biodiversity and certain sensitive physical environments, better preserve the environment, and enhance landscapes or rural heritage. In this regard, we commend the partnership between UPA and Fondation de la faune du Québec to protect certain aquatic ecosystems.

2. Agriculture, a rural development tool

In many developed countries, land has become a reference point for developing and implementing main government policy instruments. Economic policies—including those applicable to the agrifood sector—are increasingly modulated according to the characteristics and development potential of the environment, as well as the constraints it faces and variations in standards of living among regions. There is also an increasing trend toward the decentralization of local and regional development powers. Furthermore, concerns regarding land use are influencing economic policy in certain countries.

In Québec, even in rural communities, only 6.4% of the population works in agrifood. Clearly, these people alone cannot ensure the viability of rural municipalities, even if their activities are often the cornerstone of local economic development.

It is therefore essential to have a territorial vision of development and support new, complementary economic projects, projects that it is not always possible to carry out outside permanent agricultural zones. Solidarité rurale du Québec points out that “rural land is multifunctional. Balancing these different functions is crucial for harmonious development. Segmentation of the rural environment through the excessive predominance of one function in a given area makes such areas economically and environmentally vulnerable. This type of overspecialization puts pressure on resources and increases tensions with respect to use.”

While agricultural production must clearly be the priority in the green zone, agrotourism and related projects must also be possible in this zone or its immediate outskirts. We must also make much more optimal use of agroforestry potential.

Furthermore, it is crucial that we increase food product processing activities in the regions. This major industry tends to be located near main consumer markets; Solidarité rurale du Québec indicates that nearly 80% of Québec's GDP from food processing is currently generated in the metropolitan Montréal area. Of course, slowing this region's agrifood momentum is out of the question, but businesses should also be encouraged to process food products near local and regional production sites. The Desjardins Group shares this point of view: “Suitable use of agricultural land is clearly conditional on the diversification of agricultural activities, including local processing initiatives that attract new talent to the regions and give new impetus to local markets. The current trend toward centralizing food processing and distribution in large urban centers is hurting the regions.”

To ensure transparency and simplify the task of all those seeking to improve the use of agricultural land, CPTAQ should follow in the footsteps of its counterpart in British Columbia by drawing up and publishing a list of less traditional, complementary agricultural activities that are allowable in the green zone without prior CPTAQ approval. This tool for dynamic land use would have to be approved by the government and would take the form of a regulation binding CPTAQ and municipal authorities. Naturally, having such a regulation should help prevent land subdivision by agricultural projects with hidden residential development agendas.

Recommendation

Consequently, Commission sur l'avenir de l'agriculture et de l'agroalimentaire québécois recommends

- 43.** That agricultural land serve as a basis for rural development, with a view to ensuring multifunctional agriculture and dynamic land use. To this end,
- That CPTAQ draw up a list of activities that are allowable in the green zone on certain conditions and that no longer require prior approval, such as the establishment of certain types of smaller farms, and that this list be approved by the government and take the form of a regulation binding CPTAQ and municipal authorities
 - Furthermore, that with regard to activities not listed, CPTAQ revise its enforcement rules for the permanent agricultural zone in order to also allow agricultural production and processing activities that use less land, require smaller facilities, combine agricultural and complementary activities, or whose promoters do not wish to operate full-time farming outfits, provided that these projects are viable and managed by people qualified to carry them out

INTEGRATED AND PARTICIPATORY MANAGEMENT OF RURAL DEVELOPMENT

1. Local control of land use planning

The Government of Québec has chosen to place responsibility for land use planning and development at the RCM/metropolitan community level for elected municipal officials to deal with. But giving the public as much control as possible by putting decision-making authority in local hands does not mean that the government has taken a completely hands-off approach to these issues—certain provincial imperatives remain that must be shared between municipal bodies and the Québec government. This is particularly the case for major economic or sectoral decisions with respect to energy, forests, interregional transportation, the environment, and of course, the protection of agricultural land and the development of agriculture. In these matters, the government issues directives or guidelines that municipal officials in charge of updating master plans must take into account.

The development and revision of these plans is a democratic and participatory exercise carried out locally or regionally. It gives rise to extensive discussions between elected officials and civil society stakeholders. Farmers and their representative associations take an active role in these discussions and a close interest in issues that touch on land use and agricultural activities.

It is at this level that local agriculture development issues should be discussed, with a view to sustainable development in the region and rural localities, as well as optimal use of resources. This is where initial decisions should be made regarding the best use for the area as a whole based on the physical features of its various environments; optimal use of the land for industrial, commercial, and residential purposes; opportunities afforded by the permanent agricultural zone; tourism sector priorities; areas to be protected in response to biodiversity concerns; and other environmental or heritage matters. In a nutshell, it is at this level that master plans must be made. We would note that the government encourages RCMs to draw up their own development plans for the permanent agricultural zone.

In order to maximize the benefits of this democratic exercise in planning future land use, the following steps should be taken:

- For the area as a whole, municipal authorities first identify **zones** conducive to different types of uses. The green zone must retain its agricultural vocation, but space can be set aside for uses compatible with this continued vocation. The current procedure for revising master plans already calls for this.
- Proceeding from this comprehensive vision, the RCM or metropolitan community then applies to CPTAQ to have various subareas included in or excluded from the permanent agricultural zone.
- The revised plan is then submitted for approval by the Minister of Municipal Affairs and Regions, in accordance with the current procedure.
- This plan is then submitted to CPTAQ.

CPTAQ should subsequently be able to delegate responsibility under certain conditions to RCMs and metropolitan communities so that they are the ones that approve agricultural and complementary activities in the green zone, in accordance with the master plans they have approved for the zone. There is no reason that adding lodgings or a restaurant to an establishment already located in the green zone should require individual CPTAQ approval.

In order to promote participatory management with respect to rural development planning, situations in which a given group receives special status should also be avoided as much as possible. This is currently the case with the review process for applications submitted to CPTAQ by RCMs or metropolitan communities under Section 59 of the APALAA. According to the current provisions, these collective applications to use land in the green zone for residential purposes must have been approved by the “certified agricultural association” (UPA), which, in practice, confers veto rights on this body. Certainly, farmers in the region must be consulted through their organization, and their point of view must be taken into account. On other applications in the agricultural zone, though, while UPA is consulted, there is no requirement that CPTAQ receive the approval of the certified agricultural association before rendering a decision on the application.

Democratic bodies generally consider this type of status an irritant. If our goal is to systematize the collective review of applications for exclusion from the green zone, veto rights are unnecessary and even contrary to the dynamic we wish to create. These applications are directed to CPTAQ, whose main mission is to protect agricultural land. Far from harming farmers, eliminating this special status would probably help improve relations between farmers and other civil society stakeholders.

The collective approach recommended here has clear advantages:

- It situates the permanent agricultural zone in the dynamic of the rural community and allows local bodies to implement a multifunctional vision for the land.
- It promotes public participation in local development issues and satisfying agricultural and agrifood sector requirements.
- It establishes the rules of the game, generally for at least seven years, i.e., until the next time the master plan is updated, and therefore protects agricultural producers from repeated spot-zoning applications to exclude land from agricultural use.
- It allows the harmonious and complementary management of the respective powers of municipal bodies with respect to land use planning and the responsibilities of Commission de protection du territoire agricole.
- It encourages local and regional authorities to take responsibility for the development of agriculture.

2. The peaceful coexistence of agricultural and nonagricultural activities

In 2001, the *Act respecting land use planning and development* was amended in order to authorize RCMs to develop interim control bylaws to promote “the peaceful coexistence of agricultural and nonagricultural uses in the agricultural zone.” Such bylaws must comply with government policies on the matter.

According to an April 2007 census, 80 RCMs have such bylaws that set out (depending on the RCM) distances that agricultural establishments must keep from their neighbors, zoning rules for agricultural production, and limits on pig farming.

This regulatory activity by RCMs is clearly tied to citizen response to increased swine production in certain regions. Pollution problems and the strong odor associated with large swine facilities have spurred often heated debate that has marked the development of the pig industry in recent years. Many representatives of agricultural organizations spoke to the Commission about the tensions generated by these bylaws. Fédération de l'UPA du Saguenay-Lac-Saint-Jean, in particular, acknowledged that they had “brought their share of confrontations and conflicts in use in the agricultural zone.”

Commission sur l'avenir de l'agriculture et de l'agroalimentaire québécois has received a number of briefs addressing this issue. Positions are generally clear-cut. Many participants agree, however, about the need to resolve these very real problems concerning the coexistence of uses through calm and respectful dialog.

The social acceptability of an economic activity is among the imperatives of sustainable development. Insofar as farmers can legitimately produce swine when agroenvironmental conditions permit, they must openly cooperate to find solutions that make this activity compatible with the economic life of their communities. In addition, other residents must accept that they live in the country, a place where agriculture—with all its distinctive characteristics—is a priority. The hoped-for solidarity between Quebecers and farmers is conditional on these efforts to promote reconciliation. Many agricultural bodies and municipal authorities view dialog as the only path to peaceful coexistence.

Fédération de l'UPA de la Mauricie stated in this regard, “In our discussions with the RCMs and towns we deal with in our region, we decided to have win-win relationships. This has paid off because we have no excessively restrictive bylaws for agriculture. Direct communication prevents many conflicts.” According to the Montcalm CLD, “A well-functioning agricultural advisory committee is the key to peaceful coexistence in the RCM and could serve as a model for other RCMs.”

The Commission readily recognizes that dialog can dispel misunderstanding and give rise to suitable solutions to local and regional issues. To promote dialog, we must modify the procedure or amend legislative provisions so that Ministère du Développement durable, de l'Environnement et des Parcs (MDDEP) does not issue authorization certificates for swine facility projects before the RCM holds on consultations on the matter. Jumping the gun significantly undermines the consultation process and pits citizens against farmers. It also seems unnecessarily provocative, even though the procedure was adopted for purely technical reasons tied to legal consistency.

The procedure for assessing the main environmental impacts should therefore be simplified. Representatives of MDDEP, MAPAQ, and the RCM concerned would take part in this process, particularly by consulting the public on agricultural sector projects that raise environmental or coexistence issues. MDDEP would take public feedback into account before issuing the promoter any authorization certificate.

Recommendation

Consequently, Commission sur l'avenir de l'agriculture et de l'agroalimentaire québécois recommends

- 44.** That rural land development be planned according to a management approach that promotes local or regional citizen participation with a view to dynamic land use and, consequently,
- That RCMs and metropolitan communities, following revision of their master plans, adopt development plans for their respective permanent agricultural zones and submit to CPTAQ their vision for use of the green zones
 - That the act be amended to allow CPTAQ to delegate responsibility for enforcing provisions regarding which activities are authorized in the permanent agricultural zone to metropolitan communities and RCMs that have revised their master plans and adopted development plans for their permanent agricultural zones
 - That in reviewing collective applications submitted to CPTAQ by an RCM or metropolitan community, Union des producteurs agricoles (UPA) send the Commission an opinion that must be considered, but that the Commission's decision not be subject to UPA approval
 - That discussions regarding the coexistence of agricultural and nonagricultural activities be held locally and regionally, and that interim control bylaws consistent with government policies be developed after reaching a consensus with agricultural organizations in the community
 - That the government adopt a simplified procedure for assessing the environmental impacts of agricultural sector projects that raise environmental protection or coexistence issues, and that project authorization certificates be issued only after this assessment is complete

The Use of Agriculture for Reasons Other Than Food Production



12

The main purpose of agriculture has until now been food production, meaning that the earth was cleared and cultivated to feed people. However, agriculture has also served to produce goods like cotton, wool, and linen, which were at first used to meet agrarian needs, then for more general purposes. In addition, certain plants have been picked or cultivated for medicinal purposes.

Now scientific progress has created new possibilities.

Agriculture is already being used to create pharmacologic substances and medication, and many predict a bright future in this regard. However, the main spur to nonfood uses of agriculture in recent years has been the need to identify new energy sources.

In his comments to the Commission, Mr. Gaétan Lussier, chair of the Canadian Agri-Food Policy Institute (CAPI), stated that “Energy is impossible to ignore. Worldwide production is decreasing, and demand will increase by 50% by 2020. The agrifood industry is a major energy consumer, but it also has the potential to be a source of alternative energy. [...] New technology will allow more cost-effective use of cellulose in the coming years, making the production of biomass more efficient and lending new vitality to many waning rural areas.”

Traditional energy reserves may run out in the foreseeable future, so government and industry are looking for new types of combustible fuels. And with time short, it has become a race against the clock. The relative scarcity of oil is doing nothing, however, to halt worldwide demand. We are not ready to make fundamental changes to the way we live. In fact, demand for fuel is predicted to rise significantly in the coming years, due in large part to the growth of the global auto market, particularly in developing countries⁹⁵. Concerns over greenhouse gases and their impact on climate change have heightened interest in fuels that produce less carbon. The desire on the part of certain countries to reduce their dependence on foreign sources of oil and other forms of energy has led them to produce biofuels domestically. This issue is having a decisive influence on the energy policy of the United States. To date, the most common biofuel remains ethanol made by processing plant sugars.

95. According to *Worldwatch Institute*, three-quarters of the worldwide growth in demand for oil is associated with road transportation. The auto market will grow fourfold between 2000 and 2030 in non-OECD countries.

ETHANOL: A GLOBAL PERSPECTIVE

1. Production

Brazil was one of the pioneers of industrial ethanol production. Sugarcane has been grown extensively in Brazil for nearly 25 years, for both sugar and ethanol. Over 21 billion liters of ethanol are produced yearly, and that figure is expected to double by 2016⁹⁶. In **China**, ethanol is mainly made from corn. Production has already hit 2 billion liters per year and should rise to 3.8 billion by 2016.

In **Europe**, the total ethanol production of all EU countries combined is only 730 million liters per year, since the preferred alternative fuel is biodiesel (3.2 billion liters). **Canada** should produce 840 million liters of ethanol in 2007 and 2.74 billion liters in 2010. The main inputs used are wheat and corn. **Québec** has only one ethanol distillery, the Greenfield Ethanol plant in Varennes, which has been in operation since February 2007. Its production capacity is 120 million liters per year.

The greatest increase in ethanol production in the coming years will be in the **United States**. In 2006, production from grain corn was already 19 billion liters, a nearly 20% increase over the previous year. At that rate the **United States** should produce 39 billion liters of ethanol in 2009 and over 45 billion in 2015.

While substantial amounts of corn have been planted for ethanol production, this is not a first step in the development of a biofuel industry; cellulose from wood substances shows much greater potential. Techniques have yet to be perfected, but intense research is underway in the United States and many European countries.

Table 28

BIOFUEL PRODUCTION BY MAIN PRODUCER COUNTRIES IN 2005, 2006, OR 2007

Country	Year	Input	Type	Volume produced	Anticipated volume
Brazil	2007	Sugar cane	Ethanol	21 billion L	
Canada	2007	Wheat, Corn	Ethanol	840 million L	2010: 3.1 billion L
United States	2006	Corn	Ethanol	19 billion L	2009: 39 billion L
Europe	2005	Oilseed crops	Biodiesel	3.2 billion L	2016: 6.7 billion L
		Cereals	Ethanol	730 million L	
Québec	2007	Animal fat and recycled oils,	Biodiesel	35 million L	
		Corn	Ethanol	120 million L	

Source : RICHARD, François, 2007⁹⁷

96. According to OECD

97. The data in this table was taken from D. BALLERINI, *Les biocarburants, État des lieux, perspectives et enjeux du développement*; CEPAPF, *La production de biocarburants dans les milieux ruraux du Québec*; F. FORGE, *Les biocarburants, politique énergétique, environnementale ou agricole?*; G. LEMME, *Implications of Emerging Technology on the Ethanol Industry*; ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT, *La croissance de la demande de biocarburants alimente la hausse des prix agricoles, indique le rapport conjoint de l'OCDE et de la FAO*; H. SUMMA, *EU Biofuels Policy and Effects on Production, Consumption and Land Use for Energy Crops*; P. WESTCOTT, *Ethanol Expansion in the United States, How will the agricultural sector adjust?*

2. Production incentives

The very rapid increase in ethanol production in some countries is partly due to higher gas prices, which have made biofuel and alternative fuel technology more competitive. However, the current craze for biofuel is mainly the result of the energy policies in certain countries and budget and tax incentives offered by governments. The biofuel produced is heavily subsidized.

In Brazil, the fuel used in motor vehicles is up to 85% ethanol. A portion of the country's automobile population has even been converted to run exclusively on ethanol. The very fact ethanol is routinely incorporated into fuel is in itself a powerful incentive for ethanol production. European countries have adopted policies to raise the biofuel content of fuel—especially diesel—from 2% in 2005 to 5.75% by 2010 and 10% by 2020. Some of the other incentives that have been implemented include lower taxes on biofuel, subsidies on energy plant cultivation, financial assistance to biofuel processing plants, and the development of vehicles whose engines can run on gas or diesel with 10% or higher ethanol content.

Canada has developed a renewable biofuel strategy that openly encourages the use of these products. The most significant measures adopted as a result are regulations imposing a minimum 5% ethanol content in all gas by 2010, a tax rebate of \$0.10 per liter on renewable fuels, major investments aimed at promoting “ecoagriculture,” increased research capacity, the accelerated commercialization of new products, and the recruiting of new technical and financial consultants. For its part, the Government of Québec has adopted a climate change action plan that calls for 5% ethanol content in gas by 2012. The government's energy strategy also seeks to promote the development of new energy technology and forest biomass, among other initiatives.

The United States has mobilized considerable financial resources in support of biofuel development. The 2005 federal energy policy clearly set out the goal of reducing the country's dependence on foreign oil. The government is putting considerable effort into promoting biofuel and wishes to raise the ethanol content in gas from 3.5% in 2006 to 15% in 2017. In addition to the incredible leverage this goal provides, the U.S. federal government has adopted various other incentives, including subsidies to the tune of \$5.5 to \$7.7 billion annually, exemption from excise taxes on biofuel, and production development programs.

As of January 2007, there were 110 ethanol plants in the United States and dozens of other facilities under construction or in the planning stages. In 2006, 14% of the corn grown in the United States was used to produce ethanol. That figure is set to rise to 31% by 2017.

DEVELOPING OTHER TYPES OF BIOFUEL AND BIOPRODUCTS

Biodiesel is the second most common biofuel after ethanol. It is mainly produced in Europe (3.18 billion liters in 2005) from colza and, to a lesser extent, imported soy and palm oil. **Biogas** made from fermented plant or animal matter like manure, trash, and energy plants offers increasing potential. This type of gas is used to produce heat, which is mainly converted to electricity. Germany is the world's biggest producer of biogas, with 3,000 organic matter digesters. There are roughly 200 such digesters in the United States and a dozen-odd in Canada.

As for bioproducts, Canada has 1,055. The most promising are biomaterials for packaging (which have the added bonus of being biodegradable), biochemical products, products like hemp made from fibrous plants, and biosensors. A whole new industry is emerging around the development and marketing of this new generation of materials. Québec accounts for nearly 30% of the Canadian bioproducts market and is home to 72 companies in the field. The feedstocks used are agricultural, forestry, and marine biomass.

ISSUES SURROUNDING BIOFUELS

1. Benefits

Biofuels are of economic benefit to agriculture. New activity is generated in agricultural production as well as biofuel processing and distribution, particularly in rural areas. These benefits will be magnified as foreign oil is replaced with local production. In the U.S., estimates are that the ethanol industry generated \$41.1 billion in revenue and created over 160,000 jobs in 2006. The European Union estimates that for each percentage point of growth in the replacement of oil with biofuel, 45,000 to 75,000 jobs are created, half in agriculture.

In the short term at least, farmers—particularly grain farmers—will be the big winners in this new agricultural market. The price of corn rose from \$101 per ton in 2004–2005 to an estimated \$140 to \$160 per ton in 2007. With a growing share of the corn crop being used by ethanol plants, the United States Department of Agriculture has predicted that the price of grain corn should stabilize between 2009 and 2017 at \$3.75 a bushel. That's \$0.50 higher than the highest price over the last five years⁹⁸.

The other benefit with great potential is the exploitation of biomass, especially when biofuels are made from agricultural and forestry byproducts, residue from slaughterhouses or restaurants, or even municipal waste. Solidarité rurale du Québec believes that "Biomass production may be an opportunity to exploit agricultural byproducts and animal waste, thereby providing new business opportunities for agriculture."

In addition, the growing interest in biofuels can partly be explained by their contribution to reducing greenhouse gas. According to Natural Resources Canada, pure biodiesel would emit between 64% and 92% (depending on the feedstock used) less greenhouse gas than fossil fuels. Ethanol E-10, on the other hand, which is made from corn, would only reduce greenhouse gas emissions by 3 to 4%.

98. USDA, *World Agricultural Outlook*, May 2007

2. The true energy and environmental performance

Considering the oil and fertilizer used to produce corn for ethanol production and the amount of nitrate released by that fertilizer, the overall effect on greenhouse gas levels would be negligible and perhaps even negative. In fact, some American researchers⁹⁹ have concluded that ethanol produced in the U.S. using grain corn resulted in somewhere between 0.9 and 1.5 more greenhouse gas than gasoline. Citing other studies, Greenpeace was very critical of corn ethanol at the Commission hearings: "Ethanol is an economic and ecological disaster. By quantifying the ecological impacts across its life cycle, studies have concluded that the results on the environment of using ethanol could be the opposite of what was hoped."

In addition, booming prices spurred by the use of ethanol have encouraged many farmers to step up corn cultivation and in cases fail to rotate crops¹⁰⁰. Some fields previously used as pasture land are being used to grow corn. These choices combined with the generalized use of mineral fertilizer common to extensive corn farming could aggravate certain environmental problems.

The controversy surrounding the use of corn to produce ethanol and its true benefits in terms of energy and the environment is likely to continue for some time. Corn ethanol is clearly not a very attractive option, however, and does not hold out the same potential as cellulose.

3. Food and energy: competing needs

Considering that in recent decades many industrialized countries have had to use coercive measures in order to avoid production surpluses, the prospect of new markets for certain agricultural products has been very well received. However, the sudden growth in the cultivation of corn in recent years in order to meet energy needs has caused some concern.

In the United States, for example, the area used to grow corn increased by 5 million acres (+15%) in 2007 over the previous year. USDA estimates that this increase was partly at the expense of soy cultivation, which saw a 3.3 million acre decline in area over the same period. Grains used for energy needs are also displacing wheat, oilseed crops, and cotton, causing relative scarcity and rising prices. Between 50% and 60% of the corn grown in the United States has traditionally been used as animal feed. USDA predicts that levels will drop to 40% to 50% during the next decade.

The European Union predicts that reaching its objective of replacing 5.75% of fossil fuels with biofuel by 2010 will require using 18% of its total agricultural land for grain and woody plants. In the United States and Europe, substituting 10% of oil with biofuel (ethanol and biodiesel) will trigger problems with the availability of agricultural land. If countries set even more ambitious goals, this will create a much heightened risk of competition between food and energy consumers for agricultural production¹⁰¹.

99. P.J., CRUTZEN et al., "N₂O release from agro-biofuel production negates global warming reduction by replacing fossil fuels," *Atmospheric Chemistry and Physics Discussions*, July 2007

100. USDA, *World Agricultural Outlook*, May 2007

101. D. BALLERINI, *Les biocarburants. État des lieux, perspectives et enjeux du développement*, Paris, 2006

4. The domino effect

OECD is categorical: "Any transfer of agricultural land from food production to biomass for energy will cause food prices to rise." According to OECD and FAO, ethanol production from corn was one of the causes of lower grain stocks and higher prices in 2006. The demand for biofuel has triggered radical change in the agricultural markets of the United States and many other countries, leading to increased global market prices for many products. USDA predicts that the price of corn, wheat, and soy will remain stable until 2009–2010, then fall slightly and settle at still relatively high levels by 2016–2017. Since the demand for corn to produce ethanol is unlikely to drop in the foreseeable future given U.S. energy goals and the number of ethanol plants in operation and under construction, there is no reason to believe prices will fall.

Higher grain prices have had an obvious impact on the production costs of pork, beef, and chicken. The impact could, however, be mitigated by feeding ruminants a part of the oil meal (residue from grain and oily fruit from which the oil has been extracted) and spent grains (barley residue) obtained as byproducts when ethanol is distilled.

The new U.S. energy dynamic will also be felt on the export market. The U.S. has historically accounted for 60% to 70% of the world's corn exports. That figure will soon drop to somewhere between 55% and 60%, according to USDA.

This domino effect has unfolded within truly remarkable speed. Barely two years after the U.S. government announced a huge ethanol production plan, its impact is already being felt in regions around the world. No matter how much we argue that ethanol is probably not the best choice, the decisions made over the last few years will still have considerable consequences and a lasting effect on agriculture. Ethanol plants will not be shutting down any time soon. There are significant economic benefits to rural areas across the country from the grain produced to supply these plants and from the very operation of these facilities. The system, though imperfect, will continue to affect agriculture and rural development for many years to come.

The North American price of many grains is determined by the Chicago Stock Exchange. The effects of U.S. energy policies are therefore immediately felt in Québec. Québec's agricultural sector will have to consider the unique mix of factors driving the development of ethanol on the continent.

5. Second generation biofuel

Many specialists believe that as of 2015, biofuel will be increasingly produced using wood cellulose rather than grains. Considerable sums are currently being invested in *cellulosic ethanol* R&D. The University of Wisconsin, for example, is currently carrying out research projects worth \$125 million, mostly involving cellulose.

A great variety of feedstocks can be used to produce cellulosic ethanol, including wood, wood chips, forestry and agricultural byproducts, straw, switchgrass, corn cob, and even certain plants like willow. Ethanol yields may even be much greater, and the potential conflict between using land for food or energy production could be avoided or at least minimized.

A first commercial cellulosic ethanol plant—using corn cob—will be built in Emmetsburg, Iowa. It is expected to produce 472 million liters of ethanol per year. The technology used will produce 27% more ethanol per unit area cultivated¹⁰² while reducing the plant's water consumption by 24% and almost entirely eliminating the use of fossil fuels.

Another pilot plant is operating in Ottawa. It uses cereal straw (wheat, oats, and barley) and can process 40 tons of feedstock per day to produce 3 million liters of ethanol annually. In Québec, the first pilot plant producing cellulosic ethanol should open in 2008. Enerkem is currently testing ways of exploiting forestry and agricultural biomass as well as plastic byproducts and waste. The process being tested releases gas that is then used to produce ethanol.

Tests are also being carried out on ways to create biofuel using mill byproducts and other plant, forest, or switchgrass residue. Maple Leaf is also operating a biodiesel production unit, in Ville Sainte-Catherine, Québec. It produced 35 million liters in 2006 using animal byproducts and recycled cooking oil. In addition, Fédération des producteurs de bovins du Québec is working on a project to make biodiesel using animal carcasses, which would help resolve a major environmental problem.

As previously noted in the chapter on the environment, it would be highly beneficial to produce biogas from animal waste and other agricultural and domestic waste.

102. The process uses both grain and woody substance from plants.

CHOICES FACING THE AGRIFOOD SECTOR AND QUÉBEC SOCIETY

Four major points must guide decisions by the agrifood sector and especially by Québec society regarding the use of agricultural land for purposes other than food production.

Any decision to use land for the production of biofuel and other bioproducts should take into consideration

- Clear scientific data provided by researchers
- The diversity of agricultural activities and multiple uses of agriculture
- Regional development and rural revitalization
- The principles of sustainable development

1. Research

Bioproducts are practical applications; the end result of research studies. Science lets us perfect technologies that transform agricultural and forest biomass into a variety of products for many purposes while diversifying the feedstocks used. Research also allows us to explore the scientific, environmental, economic, and social issues surrounding the development of biofuel and other bioproducts.

The Québec government has granted financial support to cellulosic ethanol research. This is an excellent choice that should be made a research priority. Given that the government cannot afford to spread itself too thin, it must focus on those areas of investigation that hold out the most promise.

To be truly productive and useful for Québec and the agrifood industry, research must focus on potentials unique to Québec. For example, the province has huge amounts of unexploited forest biomass, mainly unused trees, saplings, and forestry byproducts. What's more, agriculture's dual role in producing both food and other useful products opens the door to biofuels and bioproducts; research must be used to optimize this potential. Research must also expand knowledge in ways that help citizens understand the development issues at stake.

2. The diversity of agricultural activity and the multiple uses of agriculture

Less than half of our farmland is reserved to agricultural use. We must actively look for ways to promote agricultural development, especially by diversifying products and production and processing methods. The use of agricultural products to produce biofuels and other bioproducts is a new opportunity to diversify agricultural activity and the use of farmland.

According to Coop fédérée, producing energy goods “holds major potential for diversification and exploitation of Québec’s agriculture and agrifood sector, and may even be the key to its future. It is also a solution for improving Québec’s energy security.” It adds, however, that “We must clearly define and understand our available options.”

Certain fast-growing wood species could be cultivated on poorer farmland and be used as feedstocks to produce biofuel. It may also be desirable to use the types of plant species employed along riverbanks to protect waterways.

This type of use would certainly encourage the development of longer, wider strips, which could constitute a net environmental gain to society and an additional source of revenue for farmers. Some types of municipal waste combined with agriculture and forestry byproducts could also be converted into energy or reusable products.

In the future, electricity could also be produced using biogas, which would be another complementary use of farmland. The multifunctional character of agriculture is perfectly suited to this type of use, so long as production respects the environment and is socially acceptable.

Without choosing a specific option, IRDA (Institut de recherche et de développement en agroenvironnement) had this to say during the hearings: “Efforts should be made to develop bioenergy projects that utilize crop residue or animal waste and carcasses. [...] The transformation of cellulose into fuel should be considered complementary to grain corn. This should promote the development of new, high-yield crops to produce biomass, like hemp, switchgrass, fodder grass, and fast-growing willow. Soy and canola could also be used to produce biodiesel.”

3. Regional development and rural revitalization

Examples from Europe and the United States indicate that biofuel production can generate wealth and employment for rural areas and communities. While there are limits to this type of development, biofuel's potential is undeniable and all the more appreciable when we consider the unique challenges facing rural communities and their often fewer opportunities for economic diversification.

Biogas production, for example, could be a good fit for certain communities. Local partners could work together toward a *local community energy group*—groups of farmers, forestry companies, municipalities, regional county municipalities, business cooperatives, or private companies. Many European countries have used this solution to develop green energy. Another possibility would be for private investors to develop projects and enter into agreements with local feedstock suppliers.

4. The principles of sustainable development

The choices made regarding the development of biofuels and bioproducts must respect the principles of sustainable development. Selected options must be profitable (they must increase and diversify the income of farmers) and offer benefits to the community that do not entail heavy government investment. Selected processes must also be environmentally friendly and energy efficient. Biofuels too must respect the environment and biodiversity, and must be socially acceptable. Citizens must be involved in the debate over biofuels and other bioproducts at the local, regional, and provincial levels. Choices must contribute to community development while remaining in harmony with other local economic activities and respecting the basic values of local residents.

Recommendation

Consequently, Commission sur l'avenir de l'agriculture et de l'agroalimentaire québécois recommends

- 45.** That the Government of Québec encourage and guide the use of agriculture for the production of biofuels and other bioproducts, with consideration for the diversification of agricultural activities and the multiple uses of agriculture, the revitalization of rural communities, the economic viability of each project, environmental protection, and social acceptability, and should in this regard
- Focus its research efforts on the use of cellulose to produce biofuel and biogas as well as on the environmental, economic, and social consequences of various production methods
 - Recognize that biofuel and bioproducts hold out a great deal of potential for increasing the revenue of farmers and diversifying rural economies and accord its support to the development of these new production methods insofar as they are compatible with the points mentioned above
 - Ensure that its energy strategy and agricultural policies are in harmony with and promote the development of a biofuel market that respects the principles of sustainable development

Governance



13

Good governance is the hallmark of open societies that operate transparently within a legal system where the rules are clearly established. Governance is notably associated with the regulatory role of government, the balance of power, ethics in public administration and private affairs, commercial practices that comply with universally accepted rules, democratic rights—including the right to organize—and transparent management of institutions and businesses, particularly where government funds are involved.

In today's modern societies, governance issues have taken on new importance in government institutions and private businesses.

The United Nations Development Program defines the concept of governance as follows: "Under the parameters of Sustainable Human Development, sound governance has come to mean a framework of public management based on the rule of law, a fair and efficient system of justice, and broad popular involvement in the process of governing and being governed. This requires establishing mechanisms to sustain the system, to empower people and give them real ownership of the process¹⁰³."

In a way, governance is how we manage government and private affairs. Good governance inspires trust in citizens and investors.

The Commission has examined four components of governance in the agriculture and agri-food sector:

- Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec (MAPAQ) leadership
- Agricultural unionization
- La Financière agricole du Québec management
- Certain responsibilities of the Government of Canada

103. UNITED NATIONS DEVELOPMENT PROGRAM, *Public Sector Management, Governance and Sustainable Human Development*, New York, 1995

MAPAQ LEADERSHIP

1. Erosion of expertise

Economic growth stems above all from activity in the private sector. However, the functions of the state, notably in terms of regulation, taxation, education, and support for research, communications, and transportation, have a major impact on the business environment and economic development. In a number of sectors, business, union, and organizational representatives forge close ties with officials from the government ministries that oversee their respective activities. These relations facilitate the development and implementation of sectoral development strategies and the completion of projects in the private sector. Government specialists and private partners work together in good faith to fulfill their respective missions and foster development.

MAPAQ has long brought together experts from a wide variety of disciplines. It has played a key role in modernizing agrifood and helped create a number of research centers and institutions. Farmers and other agricultural stakeholders have shown their respect for MAPAQ, despite disputes over tight budgets or certain policy disagreements. They have long trusted MAPAQ for its noted expertise.

Clearly, this exceptional relationship has eroded somewhat over time. The disparaging remarks one regularly hears about the civil service are obviously targeted as much at MAPAQ as at others, but retiring employees and government staff cutbacks¹⁰⁴ have taken an even greater toll. This is the reason for the ministry's gradual decline in expertise. Centre de référence en agriculture et agroalimentaire du Québec (CRAAQ) has clearly noted the phenomenon. It told the Commission that "MAPAQ's expertise is gradually disappearing. [...] This is a major loss for the agricultural world and for future generations." CRAAQ believes that this loss of know-how is particularly troubling with regard to *second line resources*, or specialists who advise agricultural consultants and help them solve particularly complex problems.

MAPAQ's waning expertise is also detrimental to small businesses and those involved in emerging fields. The consultation services MAPAQ once provided are now cruelly lacking, and businesses do not always have the resources to hire private consultants—provided any actually exist.

Conférence régionale des élus for the Chaudière-Appalaches region spoke of the need for MAPAQ to have a regional presence: "We need enough professional staff in the regions of Québec to help businesses with their development needs and to enforce and monitor the regulations in effect. By maintaining government services and personnel in the regions, we can support food-producing areas and tackle regional development while protecting the environment. »

104. Under this policy, ministries only replace one out of every two government employees who retire.

2. Perception of waning leadership

MAPAQ is no longer perceived as a proactive organization with the necessary leadership to work with others to promote an inspiring vision for agriculture and agrifood.

This perception has serious consequences for MAPAQ, the government, and society as a whole. In the eyes of a good number of representatives from the agriculture and agrifood sector, MAPAQ is no longer a government organization that counts and is not equipped to guide development. It is often accused of being a lobby group lapdog. For many, MAPAQ does little real governing.

According to some at the Commission hearings, MAPAQ has fallen behind certain development trends in agriculture and agrifood. It is criticized for having little expertise with emerging products and for being unable to sufficiently support the food processing sector. MAPAQ, they say, is not well versed in food consumption trends. Its support for research is weak and disorganized, and it has not really assumed its mission with regard to food.

MAPAQ must restore its credibility by bolstering its teams in charge of analyzing, exploring, and developing its vision. It needs to establish ties with a wider array of industry stakeholders and develop opportunities for collaboration where its efforts can yield more tangible results. The government must assist it in this strategic repositioning, support its efforts to review its priorities, and equip it with the means to correctly assume its food mission, a mission currently perceived as an afterthought for the ministry. At the Commission hearings, Fédération des chambres de commerce du Québec also stressed “the lack of horizontal integration and government intervention in agriculture and agrifood. Services provided by organizations and ministries from both levels of government are too scattered. This reduces their effectiveness, particularly for businesses far from major urban centers.”

However, we should not seek to put MAPAQ back in control of everything. Agrifood production and processing businesses have reached a size and level of development that naturally involves them in the specialized services offered by other ministries. It would be counterproductive to try to bring all these services back under the MAPAQ umbrella.

For example, Investissement Québec offers all manufacturing businesses advantageous financing conditions. In food processing, as with research and innovation, businesses need to rely more heavily on Investissement Québec for their projects. A number of those at the Commission hearings thought the agriculture and agrifood sector would for all practical purposes be excluded from this type of assistance because the Québec Research and Innovation Strategy comes under Ministère du Développement économique, de l'Innovation et de l'Exportation (MDEIE). This perception is false. The strategy is for all sectors. MAPAQ's role is not to duplicate programs and funds set up by other ministries, but to make it easier for its clientele to access these development tools.

Québec society needs MAPAQ to act as a leader within the government, in the world of agriculture and agrifood, and among the shapers of society. Its leadership must stem from its know-how and expertise. MAPAQ must once again be a benchmark of professional expertise. It needs to produce and widely disseminate analyses, diagnoses, research findings, sector profiles, and studies assessing its programs to keep agricultural workers and the general public adequately informed. It must develop policies, set out an appropriate vision of the sector, and spark debate on the issues it raises. MAPAQ must create opportunities for collaboration in the agriculture and agrifood sector, take the lead as needed, and facilitate a dialog with the public. It must work more closely with the ministries responsible for health and the environment. MAPAQ also needs to participate more actively in the major government strategies on food and nutrition, economic and regional development, and agricultural land use. Furthermore, it must maintain relations with the federal government aimed both at complementarity and the vigorous defense of Québec's interests.

3. Budgets

Naturally, budgets are something that can facilitate or complicate relations between a ministry and the people it serves. An analysis of government budgetary trends over the last five years shows that MAPAQ received slight increases every year, although below the rate of inflation. For their part, MDEIE¹⁰⁵ and Ministère du Développement durable, de l'Environnement et des Parcs (MDDEP) posted net budget decreases in the same period. Given the priority accorded to health, the budgets of most other ministries were capped or even cut.

Let's briefly analyze how MAPAQ has used the resources it was allocated. In 2005–2006 MAPAQ had a budget of \$658.7 million, which broke down as follows:

- \$174.3 million, MAPAQ operations and services provided to the sector, including
 - \$50 million to operate Commission de protection du territoire agricole
 - \$12.3 million to operate Régie des marchés agricoles et alimentaires
 - \$18 million to operate Institut de technologie agroalimentaire
 - \$14 million to operate the fisheries sector
 - Specialized advisory services and second line services to farmers, operation of regional offices, program management, administration and planning, etc.
- \$484.4 million, transfers: financial assistance to the sector
 - \$305 million, contribution to La Financière agricole (to farmers)
 - \$95.5 million, property tax refunds for farmers
 - \$83.9 million, budgets for other programs, including
 - Prime-Vert Program: \$26.6 million
 - Improvement of animal health: \$14 million
 - Technology transfer assistance and research: \$17 million
 - Support for regional development: \$8.8 million
 - Food traceability: \$3.3 million
 - Support for the processing sector: \$2.3 million
 - Support for training: \$1.3 million

105. MDEIE's budget was increased in 2007–2008, following the adoption of the *Québec Research and Innovation Strategy*.

In other words, the bulk of MAPAQ's budget goes to farmers or covers short term, recurring expenses. Little is left over for research, technology transfers, development of new practices (like organic farming), entrepreneurial support, consulting services, human resource development, and food processing diversification.

The easy solution would be to call for a major boost to MAPAQ's budget. As we saw in Chapter 4, the scope of the deficits at La Financière agricole du Québec will probably force the government to up its short term outlays for agriculture. Given society's other needs, notably in the areas of health, education, and infrastructures, it would be wishful thinking to expect a significant MAPAQ budget hike for recurring expenditures.

We need to plan ahead, to explore well beyond the vicissitudes of climate or economic conditions affecting agriculture and agrifood. We must make a conscious effort to devote a greater amount of the government resources at MAPAQ's disposal to activities that make a concrete contribution to its development, notably in the areas of research, consultation services, and training, by gradually reducing the portion of the budget given over to short term commitments. Although budget increases would be welcome, particularly to ease the transition period, effective use of the resources available to agriculture and agrifood will require a certain updating of priorities. In a nutshell, more money must go to structural measures.

There is reason to question the policy of itemizing property tax remissions to farmers in MAPAQ's budget. When property taxes go up—generally when assessment roles are updated—this line item rises significantly. The government provides MAPAQ with part of the funds to cover the cost, but usually asks it to absorb part of the increase from its own budget. This means MAPAQ has to cut other expenditures to pick up the cost of increases in property tax remissions over which it has no control.

It would be better to convert the current program to a refundable property tax credit for farmers, without reducing the amount of money available. The program would be overseen by Revenu Québec (as is the case for all property tax credits), aided by MAPAQ. Since it would take the form of a refundable property tax credit, farmers would get the same amount as under the current program, even if they do not pay income tax. Arrangements could be made with municipalities to provide advance payments, as is currently the case, which would avoid the need for farmers to pay their complete property tax bill and then wait for their property tax credit from Revenu Québec.

4. The state of animal health services

In its brief to the Commission, Ordre des médecins vétérinaires du Québec had harsh words about the importance MAPAQ accords animal health services. The Order stressed that MAPAQ has an economic mission and that “its public health mission as regards animal health plays second fiddle to this all-important mandate and regularly runs up against the conflicting requirements of economic development.” The Order added that “the objective of health cannot be subordinate to union objectives.” The Order deplored the lack of resources for animal health. It stressed that “the \$14 million in financial assistance for farmers (under the animal health improvement program) in 2007 is less than what it was 20 years ago. Over the years, the range of coverage has also decreased. You have to fight tooth and nail just to get a program, then you never know whether it will be renewed when it runs out (in this case March 31, 2008).” The limitations on resources are clearly detrimental to preventive veterinary medical practices. Veterinarians are unhappy with the lack of coordination between MAPAQ and Ministère de la Santé et des Services sociaux (MSSS), which is responsible for public health.

Ordre des médecins vétérinaires du Québec therefore proposed that “a separate structure that could come under the joint authority of MAPAQ and MSSS (or an independent agency) should assume responsibility for protecting public health on livestock farms.”

Of course, we must pay close attention to this diagnosis by Ordre des médecins vétérinaires du Québec. Government institutions in charge of animal health must coordinate their efforts with those responsible for public health in order to protect the public. This needs to be a top priority for these institutions and the professionals they employ. Also, the importance of maintaining Réseau d'alerte et d'information zoonitaire and of taking into account the risks posed by new epidemics reinforces the need to reevaluate the resources devoted to animal health.

But the Commission does not see how implementing a new structure, particularly a two-headed one, would lead to an increase in animal health interventions. Although MAPAQ pays little heed to these services, MSSS would be an even worse offender. Within MAPAQ, as with any other administrative structure, the professional autonomy of veterinarians is respected and protected by a code of ethics and a professional corporation.

The government as a whole needs to be more sensitive to the importance of animal health services. In this regard, the appeal by Ordre des médecins vétérinaires du Québec must be heard.

In this regard, it is essential that the monies earmarked for food inspection and animal health be stable and safely sheltered, so to speak, from the hard decisions ministries have to make in juggling budget priorities. With consumer health and protection at stake, there is no room for compromise. Seeing as these services are consumers' best assurance that their food is safe, whether it comes from Québec or elsewhere (and some 50% of the food we buy comes from elsewhere), it would seem appropriate to ask food retailers to do their part. A set amount based on the floor space of retail food outlets should be charged to finance food inspection services. This source of recurrent income would guarantee that the money is available to provide this essential public service.

5. The state of TRANSAQ

The creation of Transformation alimentaire Québec (TRANSAQ), an independent management unit under MAPAQ, raised a lot of hope in the food processing sector. However, the resources made available to it were significantly less than expected, and industry representatives openly expressed their disappointment.

In its statements to the Commission, Alliance de la transformation agroalimentaire bemoaned the fact that MAPAQ did not “deliver the expected goods” in terms of food processing assistance. It concluded that “in order to sufficiently support industrial development in agrifood processing, TRANSAQ needs to be transferred to MDEIE.”

The Agropur coop expressed another opinion: “We strongly believe that MAPAQ is the most appropriate ministry to oversee the Québec food processing sector. It must take concrete measures that deliver results. With market liberalization and the challenges Québec food processors face, it would be in our best interest for all links in the food value chain to work together to develop structures for our sector. As it did last year, MAPAQ must play a proactive role in the industry in order to promote dialog between all stakeholders.”

In the area of food processing and distribution, we suggested certain resources TRANSAQ should have at its disposal to more effectively carry out its duties. The main financing tools for manufacturers—and food processors are considered manufacturers—come under MDEIE and should continue to do so. TRANSAQ’s role is to provide sectoral expertise, guide promoters, support entrepreneurship, and bolster ties with other ministries and economic development organizations, including MDEIE and Ministère des Finances. This role, which TRANSAQ plays very well within MAPAQ, is said to be very useful for food processing businesses. But efforts must first be made to strengthen it. The return to the sector-based and cooperative approach will go more smoothly if those in charge of food production and processing work together within the same ministry.

6. Food mission

MAPAQ’s primary food mission is to ensure food safety and animal health. MAPAQ is responsible for inspecting food processing and storage sites and public places where food is eaten. Centre québécois d’inspection des aliments et de santé animale assumes this vital duty of protecting public health. The Center also acts on complaints and comments about food poisoning and sanitation. MAPAQ has also created Centre ministériel de sécurité civile, a civil security agency that coordinates government emergency plan interventions under its jurisdiction.

To fulfill its food mission, MAPAQ is actively involved in implementing the 2006–2012 Quebec Government Action Plan to Promote Healthy Lifestyles and Prevent Weight-Related Problems, *Investing for the Future*, which was adopted in 2006 on the impetus of MSSS. Weight-related problems are very troubling and require concerted efforts by a number of ministries, the private sector, and the general public. This is the main issue that makes MAPAQ’s food mission so important. And it must be brought in line with MSSS’s missions.

In the Commission hearings, Québec’s national public health director Alain Poirier stressed that “public health experts feel that one of the most important prerequisites in the fight against obesity in the coming years will be the ability of governments to strengthen partnerships with the agrifood sector. We need to continue in this direction and take action while reinforcing existing alliances.”

The agrifood sector has a major role to play in making products available that contribute to healthy diets, and MAPAQ must find compelling ways to involve industry representatives in government strategies.

The entire agrifood chain must tie its efforts to health concerns. Much of future growth in Québec agriculture and agrifood even depends on it.

In carrying out its food mission, MAPAQ must more openly encourage the agriculture and agrifood sector to be more attentive to public health concerns and healthy eating imperatives.

Recommendation

Consequently, Commission sur l'avenir de l'agriculture et de l'agroalimentaire québécois recommends

- 46.** That the Government of Québec support efforts by MAPAQ to demonstrate true leadership in developing the agriculture and agrifood sector, notably by
- Strengthening teams responsible for analyzing, exploring, and developing the vision and bolstering partnerships and collaboration with a variety of industry stakeholders
 - Revising MAPAQ resource allocation priorities
 - Converting MAPAQ's property tax remission program to a refundable property tax credit whereby all farmers would receive the same monetary compensation as currently, at similar conditions, for the property taxes owing on their farm businesses
 - Levying a charge on food retail outlets based on their total floor space to finance food inspection services and thereby ensure a stable source of revenue for these services essential to the health and protection of consumers
 - Increasing staffing levels in animal health and food inspection and stepping up collaboration with MSSS on these issues
 - More clearly affirming MAPAQ's mission, notably by involving the agriculture and agrifood sector more in the attainment of the health and healthy eating objectives set out in government strategies and by adopting a preventive approach to animal health and the environment

AGRICULTURAL UNIONIZATION

1. A situation unique to Québec

The need for Québec farmers to organize together in representative associations arose way back in 1789, when the first government-subsidized agricultural corporations were created. However, it was not until a century later (in 1875) that these various agricultural circles united to form the first provincial group, Union agricole nationale. In 1924, 2,400 farmers founded Union catholique des cultivateurs (UCC).

In 1972, the Government of Québec adopted the *Farm Producers Act*. This Act stipulated that an association representing farmers had to include general and specialized structures, basic unions, and federations. UPA met these criteria. The Act also stipulated that a referendum had to be held before a farmers association's right to collect mandatory dues and contributions from farmers could be recognized. This was done in December 1972¹⁰⁶.

Since then, as set out in the Act, UPA has been the exclusive representative of farmers. All farmers are required to pay dues to this union, even though they may formally choose not to be a member of it.

The Act does not contain any mechanism to periodically reconfirm that farmers wish to belong to their union. As mentioned above, the last consultation was held in 1972, some 35 years ago. Not only did the Act for all intents and purposes create a single body to represent farmers, it basically made it permanent. Another organization seeking to represent Québec farmers would first have to garner the support of a majority of farmers. The *Farm Producers Act* stipulates that "an association applying for certification must establish, to the satisfaction of the Board [Régie des marchés agricoles et alimentaires du Québec] and in such manner as the Board considers appropriate, that it represents a majority of the producers of Québec."

The Commission asked Observatoire de l'administration publique of École nationale d'administration publique to study farmer association methods in other provinces and countries. The Observatory did not encounter any cases similar to that in Québec. In every instance outside of Québec, there was more than one farmer association. Farmers are free to join the association of their choice and may change allegiance as the see fit.

In certain cases, notably in Ontario, the government makes it easier for farmers to set up representative associations. It requires all farmers (with gross farm incomes of \$7,000 or more) to become members of an association. The government also collects dues from farmers and attributes them, based on the association the farmer chooses, to one of the three accredited general farm organizations: the Christian Farmers Federation of Ontario, the Ontario Federation of Agriculture, or the National Farmers Union.

2. Giving all farmers a voice

A number of representatives at the regional and national Commission hearings suggested that it was time to revisit what they called the "union monopoly." Union paysanne was the most openly opposed to this single-party mode of farmer representation. In its brief to the Commission it noted, "Although the issue of UPA's monopoly could at first seem strange in a debate on agriculture, it is the crux of the matter and must be addressed here. For decades, UPA has extended its control well beyond the simple role of union representation. It now exerts excessive influence over agricultural financing, marketing, municipal policy, land use planning, and government monitoring and oversight bodies." It added, "We certainly do not deny the importance of UPA's role, but we believe that it only represents part of the agricultural community. Farm workers, small farms, and artisans engaged in alternative agriculture are just some of those whose voices go unheard."

Fédération interdisciplinaire de l'horticulture ornementale du Québec, which represents nearly 4,000 businesses involved in ornamental horticulture production and marketing, also asked for changes to allow broader representation. In its brief to the Commission, it stated, "The Federation ... and its affiliated associations question why UPA should be the sole representative and contributions to it compulsory. This arrangement is not what certain of our associations wish to see. Their members want to be able to pay their compulsory dues to an organization or associations that have the know-how to properly represent them. This arrangement no longer fits with today's reality, and we believe it is time to completely rethink this sole representative status."

Also calling for a new voice was Réseau des jeunes maraîchers écologiques: "With the type of agriculture we practice, we do not at all feel at home in UPA, even though it has a legal monopoly on representing us and must represent us. It is difficult to imagine that with all the various agricultural models that coexist, a single organization can adequately represent us all."

In all large organizations, dissent is muted and usually kept within the organization. It is completely normal to think that UPA's organizational and operating modes or stances on issues would not garner unanimous support in the agricultural community. Is this criticism at the Commission hearings about farmer representation normal dissent or rather a reflection of farmers' desire to overhaul the way their professional association operates? The only way to answer this question is to ask farmers.

The Commission is fully aware of the importance of organizing farmers into representative professional associations that have the resources to allow them to effectively protect farmers' interests and influence the development of the agriculture and agrifood sector. No one would benefit from weakening farmer representation. This is why it is reasonable to require all farmers to become members of and contribute to a professional association of farmers. It is important to also note that the way farmers are organized differs significantly from that of salaried workers, and special provisions regarding their membership in a professional association should be set out. Since all farmers benefit from the efforts of one or more professional associations, it is normal that they should contribute to them financially.

However, in a democratic society, we cannot truly justify maintaining a regime that requires a group of people to join a single association and that provides no means for confirming their desire to become or remain members of it.

This situation is unhealthy and even detrimental to UPA's credibility. It is fully in UPA's interest to cement the legitimacy of its mandate through the democratic expression of its members.

It is important to establish a legal regime that allows farmers to choose the professional association they wish to join, provided they would like there to be more than one. It is also critical that farmers be able to periodically express their opinions about their continued membership in their chosen group—the vitality and representativeness of the professional associations depend on it. If like everywhere else an association is subject to a procedure by which members (in this case farmers) may decide to stick with their choice or change unions, a new dynamic will emerge within the association, one beneficial to all. In the democratic process, accountability is essential to good governance and organizational success.

Another reason for the Commission to advocate giving farmers the opportunity to pronounce on their representative association is a concern for consistency. The thrust of this report's recommendations is to open up food production, marketing, processing, and distribution systems and give entrepreneurs greater freedom. The Commission is for pluralistic agriculture in all regards. It also accords great importance to institutional transparency and democratic workings. These principles and values must also apply to the way farmers choose their form of representation.

But given the context since 1972, how do we put in place the democratic mechanisms and guarantees so many people are waiting for? A solid organization already exists: UPA. And its duty is to represent farmers. We therefore need to give other organizations that would like to represent farmers the chance (and the time) to establish themselves as defined entities and promote their worth among farmers. The rest will be up to farmers, because it is for them alone to decide which organizations they wish to belong to.

Ontario adopted a very simple process. The Ministry of Agriculture, Food, and Rural Affairs (roughly the equivalent of Régie des marchés agricoles et alimentaires du Québec) certifies organizations that may act as representative associations for farmers, based on known criteria. The criteria stipulate that association members must be farmers. They also stipulate that the representative association must be open to farmers involved in a variety of crop and animal production activities and be active in a number of regions. Every year when the time comes for farmers to complete their membership applications with the Ontario agriculture ministry, they indicate which organization they wish to belong to and pay the ministry the allotted dues. The ministry of agriculture then sends the appropriate sums to each of the farmer associations in question.

Recommendation

Consequently, Commission sur l'avenir de l'agriculture et de l'agroalimentaire québécois recommends

- 47.** That all Québec farmers join a representative professional association and that they have the opportunity to reconfirm their choice at preset intervals, and to this end,
- That the *Farm Producers Act* be amended to incorporate objective criteria for recognizing any number of professional farmer associations, that to be recognized as such an association be required to demonstrate to Régie des marchés agricoles et alimentaires du Québec (RMAAQ) that it represents a significant number of farmers involved in a range of livestock and crop farming activities and has representative structures in various regions of Québec, and that the Act further identify accreditation criteria for farmer associations and set out procedures for consulting farmers
 - That recognition of a professional farmer association be valid for five years, at the end of which the association must demonstrate that it still meets the criteria for recognition
 - That the National Assembly of Québec appoint the chief electoral officer to advise RMAAQ on the establishment of the accreditation process for professional farmer associations
 - That every five years at the time farmers register as agricultural producers, MAPAQ then ask farmers which representative association they wish to belong to
 - That after coming to an agreement with the representative association(s), MAPAQ be able to collect annual dues from farmers when they register as agricultural producers and send the dues to the designated association(s)

MANAGEMENT OF LA FINANCIÈRE AGRICOLE DU QUÉBEC

La Financière agricole du Québec was created in 2001, after years of effort to bring all Government of Québec agriculture financing and financial assistance programs, as well as some federal programs, under one roof. Here are some of the Québec programs it administers:

- Farm Financing Program (loans, loan guarantees, credit authorization, interest rate increase protection)
- Farm Income Stabilization Insurance Program (FISI)
- Crop Insurance Program
- Aspiring Farmer Support Program
- Forest Management Funding Program
- Supplementary Maple Inventory Stabilization Program

Other special financing initiatives are also available for farmers.

Today, La Financière agricole du Québec administers programs with insured values of over \$4.6 billion. It boasts a \$4.3 billion loan portfolio. In 2006–2007, it issued farmers over \$800 million in FISI-related payments.

According to UPA, “Lawmakers have based La Financière agricole du Québec’s legal makeup on a unique partnership with the agriculture sector¹⁰⁷.”

Like other government corporations, La Financière agricole du Québec is run by a board of directors comprised of government-appointed members, mostly from the private sector. The La Financière agricole board of directors has 11 members, including one who is president and CEO. Five members of the corporation, including the board chair, are selected from among individuals designated by UPA¹⁰⁸. Currently, the president and CEO is also appointed after consultation with UPA¹⁰⁹. The UPA president chairs the board of La Financière agricole du Québec.

In April 2006, the government tabled an important policy statement on modernizing government corporation governance. The objective was to “foster government corporation management that complies with strict criteria of transparency, integrity, and responsibility in order to ensure that corporations achieve the expected results” [our translation]. This policy statement led to the adoption of the *Act respecting the governance of state-owned enterprises and amending various legislative provisions* in December 2006. It stipulated that at least **two-thirds** of members of the board of directors, including the chair, must qualify as arm’s length directors, or “have no direct or indirect relations or interests (e.g., financial, commercial, professional, or philanthropic) likely to detract from the quality of their decisions with regard to the interests of society.” The Act also stipulates that a member of a board of directors cannot serve more than two terms, whether consecutive or not.

It is clear that the current composition of the La Financière agricole board of directors does not meet the Act’s requirements. The government must therefore overhaul this government corporation’s board of directors at its earliest opportunity.

Government corporations, it should be noted, can comply with legislated governance requirements without affecting their ability to design agricultural aid programs in partnership with others.

107. UPA brief to the Commission

108. Section 6 of the *Act respecting La Financière agricole du Québec*

109. *Loc. cit.*

Recommendation

Consequently, Commission sur l'avenir de l'agriculture et de l'agroalimentaire québécois recommends

- 48.** That the government immediately modify the La Financière agricole du Québec board of directors to comply with the provisions of the *Act respecting the governance of state-owned enterprises and amending various legislative provisions*

CERTAIN FEDERAL GOVERNMENT MANDATES

According to the *Constitution Act, 1867*, agriculture is a shared jurisdiction where federal paramountcy prevails. The federal government is a leading stakeholder in the agriculture and agrifood sector. In addition to its powers in the areas of monetary policy, economic development, and foreign policy, the Government of Canada has major responsibilities—particularly in the agriculture and agrifood sector—with specific regard to

- The financial support offered to farmers and other agrifood stakeholders
- Food inspection and product certification
- Research and innovation
- Interprovincial and international trade, mainly with regard to supply management

1. Québec's share

The essence of the federal government's role in agriculture and agrifood is set out in the Agricultural Policy Framework, a five-year federal/provincial/territorial agriculture agreement in force since 2003. In June 2007, provincial and federal agriculture ministers signed a memorandum of understanding on a new strategy entitled *Growing Forward*. The strategy is essentially an updated vision of the Agricultural Policy Framework. The memorandum of understanding is to guide the development of the new federal policy and agriculture assistance measures. This new framework is to be implemented in conjunction with the provinces and territories.

In the area of research, the priorities are networking and open dialog. In this respect, federal government research centers are very effective instruments. However, the Government of Québec must make sure federal funds are used to support Québec priorities and help finance institutions and businesses involved in research and innovation.

The provincial government and its partners have always taken great care to secure their share of the resources the federal government allocates through its national programs to sectoral development, including in agriculture and agrifood.

In its brief to the commission, UPA stressed that "The Government of Québec must receive its fair share of federal money [...] Québec has not gotten its fair share (only 9%), which, given its contribution to Canadian agriculture, is 13% excluding supply management and 18% including supply management." UPA therefore wants "[Québec's] share of federal income security transfers to equal 13% to 18% of the total budget for this sector."

2. Food inspection and product certification

The Canadian Food Inspection Agency manages 14 programs concerning food, crops, and animals. Its role is to enforce Health Canada's food quality and nutritional value standards. The agency is also responsible for setting and enforcing animal health standards. As we have seen in previous chapters, the Canadian Food Inspection Agency's services present serious deficiencies. Additional resources must be devoted to this fundamental mission, given the importance of protecting public health and complying with Canadian food health and safety standards, and the federal government must—and can—find the means. It is also a matter of basic fairness to Canadian food producers and processors, who are subject to requirements that their competition in certain exporting countries do not face.

The product certification process, notably for products used as farm inputs (products containing GMOs, antibiotics, other animal medications, etc.), also appears in need of additional resources. One main consequence of this is considerable delays in product certification and authorizations to bring into Canada products that have not undergone sufficient scientific assessment. Generally, we trust certification processes in other countries without taking into account the effects of products used in agroclimatic conditions that may differ considerably from those in Canada. The current procedures must be tightened because the health of Canadians is at risk.

3. International trade and supply management

It is important to remember that the federal government is responsible for foreign trade. The most important agriculture-related foreign trade issue is supply management.

The Government of Canada has systematically defended supply management in international forums on international trade, including the World Trade Organization (WTO). But many observers note that it has not shown great leadership on this issue on the international level. In trade talks, Canada has not tried to include concerns about supply management in a broader vision of the special treatment of agriculture. It has not appeared to have actively worked to rally other countries behind such a vision. This is why Canada remains relatively isolated in the current WTO trade negotiation rounds on supply management.

Many at the Commission hearings called for special rules for agriculture in world trade, given the sector's pivotal importance in a great many countries, particularly with regard to food and land use issues. They were adamant about the need for an "agricultural exception" similar to the "cultural exception" that UNESCO member countries have agreed to for education, science, and culture.

The Commission took a closer look at this issue because it raises legitimate concerns and presents a clear interest for Québec agriculture and agrifood. It consulted experts such as Université Laval Law Faculty professor emeritus Ivan Bernier, who was closely involved in negotiations on the Convention on the Protection and Promotion of the Diversity of Cultural Expressions. The Commission also asked Université Laval Law Faculty associate professor Geneviève Parent for her advice on the subject.

It has concluded from these consultations and Ms. Parent's opinion that the UNESCO-initiated convention "does not take precedence over other international agreements (such as WTO agreements), and that none of its provisions can be interpreted as amending the Parties' rights and obligations under other treaties." The Convention therefore does not constitute a precedent—as some would like—that would make it possible to skirt WTO rules.

Experts also stress that unlike cultural products, which do not enjoy any special treatment by WTO, agriculture has always been addressed separately in international trade talks. Ms. Parent pointed out that "in a manner of speaking, WTO members have recognized the unique character of the agriculture sector by subjecting it to special rules since 1995 with the Agreement on Agriculture and the Agreement on the Application of Sanitary and Phytosanitary Measures. The Agreement on Agriculture is the WTO agreement that goes the furthest in taking nontrade considerations into account."

These points of view must first be defended within WTO.

Many countries, particularly in Europe, have stances similar to Canada's and Québec's on agriculture and world trade agreements. This is not protectionism, but rather recognition that agricultural products do not have a commercial value in a strict sense, and that the WTO negotiations under way must recognize this once and for all.

Officials from countries such as France, Switzerland, Germany, and Austria (to name a few) could be formidable allies for Canada in its fight for the recognition of certain regional specificities in the commercialization of agricultural products.

UPA and certain nongovernment organizations have also sought to encourage organizations in other countries to defend measures like supply management. Much of these efforts seem to have targeted organizations in developing countries. Without minimizing the importance of showing solidarity with the people of these countries, we would note that a more profitable approach would be to forge ties with the European countries likely to exert greater influence on any new world trade rules on agricultural products.

However, we must be careful not to dismiss taking a similar approach to that which led to the ratification of the Convention on the Protection and Promotion of the Diversity of Cultural Expressions. Since a large number of WTO members have signed this convention, it is clear that their WTO negotiations on culture will be colored by the values defended by the convention, which will have a certain impact on the talks and agreement contents. It is for this reason that Ms. Parent expressed the opinion that international law's special treatment of the agriculture sector must be negotiated within WTO while "efforts should continue to be made outside WTO to promote and protect the wide variety of agricultural practices and products."

Recommendation

Consequently, Commission sur l'avenir de l'agriculture et de l'agroalimentaire québécois recommends

- 49.** That the Government of Québec and its partners in the agriculture and agrifood sector join forces to seek the following from the federal government:
- An adequate share of the financial resources devoted to this sector
 - A tightening of the food inspection and product certification system so that the health of Canadians and Quebecers is sufficiently protected and that Québec farmers who comply with these standards are treated fairly
 - An increase in research and innovation partnerships with Québec institutions and businesses
 - Greater leadership by the Government of Canada on the international scene with regard to agriculture and the World Trade Organization rules, notably through
 - The inclusion of supply management in a broader vision of the special treatment of agriculture in trade
 - The active identification of allies, particularly the governments of developed countries, so that it is recognized once and for all that agricultural products do not have a strict commercial value and that consequently trade agreements can leave room for domestic policies that reserve a special role for local production
 - The promotion of the principle of the special treatment of agriculture in trade and the identification of allies within international bodies other than the World Trade Organization that address issues related to food, health, the environment, regional development, and human development

Conclusion

The government mandated Commission sur l'avenir de l'agriculture et de l'agroalimentaire québécois to diagnose a sector of the economy in serious disarray and unsure of its own way. Agriculture and agrifood draw on many strengths, each one a building block to the future. But these building blocks can become stumbling blocks if the industry resists the need to move forward and make the changes required to adapt to new circumstances.

Quebecers had never before had the opportunity to express their vision and expectations of agriculture. They accepted the Commission's invitation and took part in the debate. Farmers, processors, distributors, and other players in the agricultural and agrifood sector openly expressed their views and shared them with their fellow citizens. The Commission dissected the sector's workings with almost surgical precision, to better understand both the constraints in the system and the potential for creatively renewing rather than completely dismantling it. Our conclusions will surprise some and rattle others. Significantly, most of the issues discussed in this report have never been debated before, except by agricultural organizations and a small circle of insiders.

The main conclusion that the Commission has drawn after 18 months of work is that the agriculture and agrifood sector has a system of laws, regulations, structures, and modes of operation that are so closed they are in danger of literally suffocating it. While preserving its pillars, it is imperative to air out the system and inject some oxygen into it so it can innovate and diversify, to form original partnerships and undertake daring new actions. In short, we must open up the system. Open it to dialog within the agriculture and agrifood sector and with civil society. Open it to consumer expectations and to proactive concern for consumer demands for healthy food. Open it to a multifunctional vision of agriculture. Open it to a marketing system that encourages, through drive and initiative, the production of differentiated agricultural products. Open it to an array of agricultural methods. Open it to young people who wish to join the agricultural profession. Open it to pluralism in agricultural organizations. Open it by taking actions that will secure its future without destroying the systems and institutions in place.

This is a big and ambitious undertaking. The reforms we have recommended are indispensable to the renewal and expansion of agriculture. Nevertheless, we cannot do everything at once. We must give ourselves time to coordinate the various phases of renewal and to manage the changes they bring. Transition stages will be necessary, and we must start planning them right away. To help, the Commission has provided the government with a roadmap for implementing its main recommendations, as a supplement to this report.

The Québec government must fulfill its role as leader in the implementation of these reforms. It must display leadership that is open and encourages participation, because the issues facing agriculture and agrifood tomorrow make it imperative to garner support today, not only of those working in the sector, but also of numerous other political, economic, and social stakeholders. We hope that Québec's main political parties will embrace the vision that has emerged from the Commission's work in its broad strokes, and that despite the differences that normally divide them, they will actively work together to bring about the changes the Commission considers to be urgently necessary.

Most of the recommendations directly concern the Minister of Agriculture, Fisheries and Food and the institutions under his authority. This is why the Commission has strongly advocated that the ministry be given the means to fulfill its important mission in all its respects. Some of the Commission's recommendations concern all of government as well as society as a whole. These issues call for, in our opinion, the active participation of the Premier in followup to the Commission's work.

Followup should be in two phases. The Minister of Agriculture, Fisheries and Food should bring together decision makers in the agriculture and agrifood sector to establish a post-Commission game plan and to agree on the order in which the work should be done and on the examination process as a whole. This panel of decision makers should also comprise, in addition to delegates from various agriculture and agrifood value chains, representatives of the health sector, consumers, environmental organizations, and municipalities. This crucial consultation phase should allow the minister responsible for Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec to assemble the main building blocks of Québec's future agricultural policy based on the Commission's recommendations.

We must broaden the debate beyond the realm of agriculture and agrifood. To develop a vision for the sector's future means to engage in a debate that includes all of society. Economic, social, environmental, and political stakeholders must participate in this debate to rally as many Quebecers as possible around a shared vision for agriculture. The Commission would deem it appropriate that every two years an open forum be held to consider progress on its recommendations.

In the course of its work, the Commission strengthened its conviction that Québec agriculture and agrifood not only have their place in Québec society and its economy, but that they have a tremendous liberating and developmental potential. The road to change set out by the Commission is certainly not without challenge, but it is one we must take if hope and confidence are to prevail.

Our only wish is that industry players and the Québec public at large will seize the Commission's recommendations to forge new relationships and look to the future with resolve and audacity.

Appendix 1: Implementation Proposals

The recommendations of Commission sur l'avenir de l'agriculture et de l'agroalimentaire québécois cannot all be implemented at once. Some require legislative amendments, others need detailed simulations or new programs, and certain measures must initially provide for transition phases.

The government must also institute a mechanism enabling agriculture and agrifood sector stakeholders, as well as affected civil society institutions and groups, to jointly proceed with implementation of the Commission report.

As a supplement to its report, the Commission has therefore prepared an implementation plan for its main recommendations. Naturally, this action plan is aimed at the government. In releasing it, the Commission wishes also to alert those interested in the future of agriculture and agrifood that its recommended changes should be phased in gradually but surely while granting affected individuals and organizations the time and resources they need to take part in the decision-making process and properly manage the changes.

This implementation plan takes into account the government decision-making process and consists of four phases:

Phase 1:
Preliminary action
on the Commission report

Phase 2:
Technical studies and
stakeholder consultation

Phase 3:
Decisions by the government
and National Assembly

Phase 4:
Measure, program,
and strategy implementation

Phase 1 :

PRELIMINARY ACTION ON THE COMMISSION REPORT, SPRING 2008

This Phase concerns activities that could be undertaken in spring 2008.

One of the first decisive actions to be taken in the weeks following submission of the Commission report is to call for and structure the participation of major agriculture and agrifood sector institutions and partners in the analysis and gradual implementation of aspects of the Commission's vision. The Commission report must also garner the interest of industry players and organizations concerned with agricultural issues, particularly with respect to health, the environment, and consumption. Given the significant changes ahead, this exercise must be carried out in a spirit of cooperation, even though it will likely be difficult to achieve unanimous participant agreement on certain issues.

The government should entrust the Québec Minister of Agriculture, Fisheries and Food with responsibility for interministry coordination to ensure implementation of the Commission's recommendations.

The second action concerns preparation of a budget framework, mainly for Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec (MAPAQ), setting out the resources to be provided over the next five years for action on the Commission's recommendations. With this five-year budget plan in place, certain decisions can be made to guide preparation of the 2008–2009 government budget.

There will only be two to three months between the tabling of the Commission report and the next Budget Speech. It will, however, be possible to ensure the budget reflects certain recommendations that are clearly necessary and do not require extensive consultation. In particular, the government could

- Begin work on a new budget for MAPAQ
- Make tightened Farm Income Stabilization Insurance (FISI) criteria and management methods a prerequisite for renewal of the agreement between the government and La Financière agricole du Québec
- Develop the building blocks of a strategy to boost investment in the food processing sector
- Revise the eligibility criteria of certain agriculture and agrifood sector activities for refundable R&D tax credits

Phase 2 :

TECHNICAL STUDIES AND STAKEHOLDER CONSULTATION

This phase could be carried out between spring 2008 and fall 2009.

It would consist of

- Analyzing each Commission proposal in detail
- Conducting appropriate technical and financial simulations
- Designing financial assistance programs and measures
- Identifying changes to be made to various legislation
- Providing for transition measures in certain cases and proposing certain priorities
- Holding consultations, both within the agriculture and agrifood sector and with other ministries, institutions, and agencies interested in or affected by the proposed changes

According to the complexity of the tasks at hand, certain steps could be completed by summer 2008, while others will probably require several additional months of analysis and consultation.

Two main undertakings must be completed during this crucial analysis and consultation phase: one financial and the other legislative.

Obviously, turning FISI into a universal agriculture support program will be the main financial task at hand. This phase can be briefly summarized as follows:

- Agreement with the federal government on the participation of Québec farmers in the new AgriInvest and AgriStability programs and management of these programs in Québec (spring and fall 2008)
- Development of main parameters for the new universal farm enterprise support program (fall 2008)
- Announcement of main terms of this new program for production types not currently covered by FISI (fall 2008)
- Transition program development (winter 2009)
- Establishment of terms for the new farm enterprise support program for production types eligible for FISI, evaluation of financial scenarios, and identification of transition phases (fall 2008 and winter 2009)

Work on the legislative component should also be staggered, given the variable complexity of the issues at hand and the contingencies of the National Assembly. In this legislative proposal preparation phase, we might reasonably expect the following steps:

- Preparation of a bill aimed at making Institut de technologie agroalimentaire an independent educational and technology transfer body led by a board of directors and reporting to the Minister of Agriculture, Fisheries and Food (fall 2008)
- Preparation of amendments to the *Act respecting the preservation of agricultural land and agricultural activities* (and, consequently, the *Act respecting land use planning and development* and certain municipal legislation) (spring and summer 2008)
- Preparation of draft amendments to the *Act respecting the marketing of agricultural, food and fish products* (fall 2008)
- Preparation of amendments to the *Farm Producers Act*, particularly regarding the representative association (spring 2009)

During this phase, the Minister of Agriculture, Fisheries and Food could draw up and propose a draft agricultural and agrifood policy based on the Commission's recommendations. This draft policy would reflect the government's vision and strategic choices and make it easier to manage the required amendments, assuming they are widely supported.

Of course, while these major changes are underway, MAPAQ, the other ministries, and agriculture and agrifood sector stakeholders should concentrate on analyzing and preparing for the implementation of other sections of the Commission report. For example, they should begin drawing up development strategies for certain subsectors (ornamental horticulture, organic farming, cheese, wine industry, greenhouse vegetables, etc.), setting out rules for cross compliance, identifying priority research niches, and reviewing funding for inspection services.

Phase 3 :

DECISIONS BY THE GOVERNMENT AND NATIONAL ASSEMBLY

This phase would run from spring 2009 to spring 2010.

Once analysis is complete and consultations have been held, the government and, as applicable, the National Assembly of Québec must reach decisions, proceed with required arbitration, and make the final choices. Clearly, these decisions must consider the overall picture, including the main government priorities, the status of public finances, and economic circumstances.

While acknowledging the government's complete freedom of choice, the Commission expects that major decisions might be made according to the following approximate timetable:

- Adoption of farm enterprise financial support program and transition program criteria, as well as the terms for implementing these programs for enterprises eligible for FIS (spring 2009, with the Budget Speech)
- Presentation to the National Assembly of a bill on the status of Institut de technologie agroalimentaire and amendments to the *Act respecting the preservation of agricultural land and agricultural activities* (fall 2008)
- Presentation to the National Assembly of a bill amending the *Act respecting La Financière agricole du Québec* in order to apply new rules for public corporation governance (fall 2008)
- Presentation to the National Assembly of amendments to the *Act respecting the marketing of agricultural, food and fish products* (spring 2009)
- Presentation to the National Assembly of amendments to the *Farm Producers Act* (fall 2009)

Phase 4 :

MEASURE, PROGRAM, AND STRATEGY IMPLEMENTATION

This phase would run from fall 2009 to the year 2011.

Once the government or National Assembly has rendered its decisions, we must also provide for a major implementation phase.

Putting in place financial assistance measures, for example, will entail a number of administrative tasks: preparing information materials for affected clientele, training personnel at organizations in charge of administering programs and measures, adapting computer systems, developing financial auditing and accounting measures, etc. Depending on the scope of changes made to programs, it will take from six to twelve months between the decision to create a new program and actual implementation.

Legislative measures often require new regulations that outline certain associated terms and conditions. Once again, it will take a number of months to draw up these regulations and to consult and notify the public.

This means that if decisions are made according to the timetable outlined above, financial assistance programs and legislative measures could come into force as follows:

- New support program for farm enterprises whose production types are not currently eligible for FISI (fall 2009)
- New support program for farm enterprises and transition program for production types eligible for FISI (phased in starting in 2010)
- New status for Institut de technologie agroalimentaire (fall 2009, with the new school year)
- Coming into force of amendments to the *Act respecting the preservation of agricultural land and agricultural activities* (starting in 2010)
- Implementation of new provisions of the *Act respecting the marketing of agricultural, food and fish products* (starting in fall 2010)
- Possible certification of new associations representing farmers and consultation of farmers regarding selection of their association (2011)

Of course, the proposals set forth herein do not cover all the legislative, regulatory, and administrative actions that must be taken in the coming months and years in order to comply with the Commission's recommendations. They simply provide an idea of the effort this extensive project will require, serve as a reminder that the proposed changes must be properly managed in cooperation with stakeholders, and illustrate the importance of developing a thorough mechanism for monitoring the Commission's work on an ongoing basis.

Let's get to work!

Appendix 2: Recommendations

Agricultural Production and Government Assistance

- 1.** That the Québec government devote the same amount to farmer support measures as it has over the past five years
- 2.** That the Québec government reach an agreement with the federal government so that Québec farmers have access to an improved farm income stabilization program and to appropriate support in the event of natural disasters
- 3.** That Québec's Farm Income Stabilization Insurance (FISI) program gradually evolve into a universal support program for farm businesses to help counterbalance production costs due to the northern character of Québec agriculture and certain environmental and social constraints implicitly imposed on farmers but not readily recognized by markets
- 4.** That the government make immediate changes to FISI as part of a reevaluation of its agreement with La Financière agricole du Québec to ensure fairer treatment for all farmers and avoid any type of overcompensation, and that such reevaluation touch on the following:
 - Yearly indexation of production costs and yields in calculating stabilized income
 - Setting of production costs based on the average of the 75% most successful farm businesses
 - Capping of program contribution and compensation levels to ensure compensation does not exceed \$150,000 per farm per year, or a decreasing amount starting from a threshold in the order of \$150,000
- 5.** That the farm business support program that would gradually replace FISI be developed and implemented as quickly as possible for types of production not eligible for FISI and not covered by supply management and that it be
 - Universal (all types of production would be eligible)
 - Cross compliant
 - Managed by La Financière agricole du Québec

Agricultural Production and Government Assistance

- 6.** That the farm business support program's financial assistance consist of
- Basic support offered to all farmers, except those who operate under supply management, up to \$150,000 per farm per year, through a direct annual payment calculated on two bases:
 - An initial amount equal to 10% of recognized net sales and applicable to the first \$50,000 in sales
 - An additional amount based on the evolution of production at each farm and criteria such as crop production area or the number of animals raised, allocated on an annual basis for as long as the farmer continues to farm, regardless of the type of production and the quantity produced
 - In addition to this direct payment, there could be another variable amount based on
 - Biophysical characteristics and climate conditions that make farming more difficult in certain specific agricultural regions
 - Practices over and above cross compliance with minimal impact on the biophysical environment (direct seeding, organic farming, and others), variably compensated in the form of a lump sum payment for a certain number of years per hectare cultivated as per these practices
 - Production of specific environmental products that are compensated in proportion to income lost or investments made in relation to the production of these goods, e.g., a buffer strip wider than the prescribed standard or protection of a wooded area, source of drinking water, wetland, or area of specific ecological interest
- 7.** That the government introduce transition assistance designed primarily to help farmers or farmer groups seeking to revisit or switch production methods and who therefore
- Reorganize their production to reduce production costs or improve yields
 - Convert to organic farming
 - Set up a complementary processing operation at the farm
 - Develop a niche product
 - Introduce a complementary type of production
 - Change to a different type of production
 - Finance facilities needed to ensure the agricultural viability of a region (a slaughterhouse, for example)

Agricultural Production and Government Assistance

- 8.** That the transition assistance take the following forms:

 - A grant covering 75% of the costs of developing a business plan for the transition project
 - Reimbursement of 75% of expenses, including the cost of having the farmer replaced by a farm employee during training activities related to the transition project
 - Reimbursement, for a period of at least two years, of 75% of the costs associated with management, production, processing, or agroenvironmental advisory services
 - A direct grant of 5% of the investment required, as per the business plan, to meet the transition project objectives
 - Financing from La Financière agricole du Québec for the required investment and no interest for the first three years
 - Investment in a cooperatively managed regional facility

- 9.** That the Québec government strongly encourage farmers who operate under supply management to act quickly, notably by

 - Limiting and lowering the cost of quotas
 - Retaining portions of quotas bought and sold and adopting other measures to establish a bank of quotas intended primarily for young farmers, according to conditions that facilitate their use in these types of production

- 10.** That Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec (MAPAQ), in its next agricultural policy, put forward a strategy aimed at improving productivity in each of the production subsector under supply management

- 11.** That MAPAQ recognize ornamental horticulture as a full fledged component of the agricultural and agrifood sector and provide it the same access to technical and financial assistance measures as other fields

- 12.** That MAPAQ, in conjunction with the other ministries involved in the action plan for healthy eating, develop a production and marketing development strategy for greenhouse vegetables

- 13.** That the government adopt an organic farming support strategy to meet the demands of Quebec consumers to replace imported organic produce with organic produce grown in Québec, and promote the export of certain Québec organic products to foreign markets

Marketing of Farm Products

- 14.** That the collective marketing system continue to serve as the basis of the system for negotiating farm product prices between producer groups and buyers and that it be made more flexible to accommodate the new realities of food marketing in Québec, and to that end,
- That MAPAQ define the places of sale for farm products that qualify as short distribution channels, and that consequently
 - Product sales in such places be exempt from the authority of a marketing board
 - The selling price be equal to or higher than the base price
 - No regulation limiting the sales each producer can make nor provision obligating farmers to be personally present at the place of sale be adopted, given the relatively low volume of short distribution channel sales
 - Farmers who sell products in short channels pay to the marketing board or any other applicable marketing organizations the corresponding research and development dues
 - That the prices of farm products, once a joint plan is in place, be negotiated between the marketing board and buyer representatives, and that the prices negotiated be considered the base prices for the various product classes
 - That the *Act respecting the marketing of agricultural, food and fish products* be amended to allow the establishment by regulation of easily verifiable, objective criteria for determining whether an agreement between a buyer and producer group qualifies as a potential case of product differentiation
 - That a producer group and a buyer or buyers' association be allowed to enter into supplemental agreements to develop and market a differentiated product, provided the agreements comply with the regulation's criteria and
 - All members of the producer group are offered the same price, which may not be lower than or equal to the price negotiated provincially by the marketing board
 - The sales and marketing board and Régie des marchés agricoles et alimentaires du Québec (RMAAQ) receive a copy of the agreement between the producer group and the buyer or group of buyers
 - RMAAQ analyzes the draft agreement and approves it based on the criteria for product differentiation agreements
 - The farmer are required to pay the marketing board dues for price negotiation, research, advertising, and production system development costs

Marketing of Farm Products

- That dues be levied, following discussions between agrifood representatives and the government under the farm product collective marketing process, to support research, training, and development for a given agricultural system, and that the funds collected be managed jointly by the farmers, processors, and distributors in a coordination chamber as provided by the *Act respecting the marketing of agricultural, food and fish products*
- That the *Act respecting the marketing of agricultural, food and fish products* be amended to stipulate that the eight RMAAQ superintendents be appointed using the following procedure:
 - Two people chosen from a list of five names submitted by farmer representatives
 - Two people chosen from a list of five names submitted by food processing and distribution company representatives
 - Two people with recognized professional skills, but not occupying any management positions with agrifood sector organizations
 - Two superintendents, including the chair and chief executive officer, at the government's discretion
- That the *Act respecting the marketing of agricultural, food and fish products* be amended to state that RMAAQ must take into account, when considering the public interest, the effects of proposed actions or its decisions on
 - Farmer incomes and government programs to support agricultural production
 - The competitiveness of the agricultural and agrifood sector
 - Regional development
 - Demand for Québec products
 - The diversity of products available to consumers and the price of the products

Food Processing and Distribution

- 15.** That the Québec government update and implement a strategy to step up investment, innovation, economic diversification, and establishment in the regions by food processing companies over the next ten years. This strategy should
- Give special support for investment in machinery and equipment
 - Develop a specific program to encourage processing startups modeled on the Processing and Development Support Program for Regional Agricultural Products. (this program should be available to all regions)
 - Promote Investissement Québec's services and financing options to the food processing industry and encourage a closer relationship between Investissement Québec and companies in this sector
 - Get Société générale de financement (SGF) involved again in the food processing industry through its investment activities
 - Fund the hiring of sectoral specialists and project planning and development consultants by Transformation Alimentaire Québec (TRANSAQ) at its main office and in the regions
 - Increase TRANSAQ's budgetary resources so that it can complement other government measures by awarding service contracts to consultants to assist promoters in developing their projects and facilitate access to various sources of financing
 - Set up a program for at least five years to subsidize 50% of the cost to food processing SMEs with fewer than 100 employees of hiring university graduates specializing in processing techniques, marketing, and related disciplines
 - Help structure the Québec cheese value chain: increase access to research, expert advice, training, and marketing support and establish quality control mechanisms
 - Develop a wine and spirits development strategy whereby government and producers would cofinance advisory services, technology transfer, quality control, and wine and spirits promotion

Food Processing and Distribution

- Create ad hoc consortiums or groups of public research institutions and private enterprises, including cooperatives, to identify the main development and marketing opportunities for dairy ingredients, functional foods, and nutraceuticals (these institutions and businesses can benefit from measures in the Québec Research and Innovation Strategy and from refundable R&D tax credits)
- Adapt eligibility criteria for refundable R&D tax credits to the specific characteristics of food processing, particularly as regards how product development is defined
- Make Institut de technologie agroalimentaire (ITA) eligible for all measures intended for college transfer and technology centers, and make companies eligible for refundable R&D tax credits when they enter into agreements with ITA's Technological Innovation Service or any other of its research, technology transfer, or startup services
- Encourage companies to establish or expand in Québec's regions, particularly by supporting development of regional specialties
- Enlist MAPAQ in the development of reserved designations by implementing the *Act respecting reserved designations and added-value claims* and by updating the Reserved Designation Support Program with a view to sharing costs between the government and interested producers and processors
- Support brand development by Québec's main agrifood companies, in particular by recognizing the cost of developing and consolidating a national brand as expenditures eligible for financial aid programs to manufacturing companies
- Harmonize the export support policies of MAPAQ and Ministère du Développement économique, de l'Innovation et de l'Exportation du Québec (MDEIE) and more systematically involve Québec's foreign offices in facilitating the province's agrifood exports
- Promote joint action in planning and stimulating Québec's agrifood sector

Food Processing and Distribution

16.

That the Québec government help create the conditions for increasing the leverage effect of food distribution on the development and diversification of agricultural production and food processing by adopting the following measures:

- Support the development of short food distribution channels, particularly by updating regulations on marketing practices and agricultural land use and by encouraging the promotion of these channels
- Through MAPAQ and in association with the Canadian Council of Grocery Distributors, nonfood stores, and suppliers of hotels, restaurants, and institutions, develop tools for monitoring the food-buying habits of Quebecers in various types of retail stores and use this information to analyze consumer wants and expectations
- In collaboration with schools, daycare centers, hospitals, nursing homes, and detention centers, implement, as a key component of government food and nutrition strategies, food procurement policies that contribute to healthy eating and also respect inter-provincial trade regulations
- Clearly indicate to Société des alcools du Québec that it should collaborate with Québec wine and spirits producers and ensure adequate promotion of Québec wines and spirits
- Through MAPAQ, provide an annual matching grant of \$2 million to Aliments Québec for \$6 million in contributions from farmers, distributors, and processors and overhaul the organization and management of Aliments du Québec with the goal of having all Québec products on the retail market carry the Aliments du Québec label within three years

Human Resource Training and Development

17. That ITA report directly to the Minister of Agriculture, Fisheries and Food (and not MAPAQ) and be directed by a board appointed by the government comprising representatives from farmer organizations, processing companies, service firms, university faculties in the sector (agrology, veterinary medicine, etc.), ITA professors, those recognized for their expertise in consumer behavior and the environment, as well as deputy ministers from MAPAQ and Ministère de l'Éducation, du Loisir et du Sport (MELS)

18. That in addition to its current mission, ITA officially receive the mandate to

- Revise and continuously update all programs in agriculture and agrifood, both vocational and technical, in collaboration with teaching establishments and the competent ministry, with a view to rationalizing the training available, and have these programs approved by the Minister of Education, Recreation and Sports
- Stress cooperative programs in agriculture and agrifood training
- Set up and manage an accreditation program for model farms that could serve as research and training sites within the framework of a cooperative program
- Increase course content in economics, management, and the agroenvironment and broaden training in new market dynamics (differentiated products, production/processing, organic agriculture, production for local and regional markets, niche markets, reserve appellations, and so on)
- Advise MELS on the coordination and rationalization of initial vocational and technical training in Québec's agricultural regions, while ensuring the quality of and better access to training in the regions
- Help coordinate continuing education by optimizing the use of facilities and the contribution of members of the various networks in the regions, in collaboration with MELS
- Facilitate the sharing of staff and equipment among establishments to ensure quality training in the regions
- Encourage the dissemination of vocational and technical knowledge in the agriculture and agrifood sector

Human Resource Training and Development

- 19.** That La Financière agricole du Québec gradually tighten training criteria that facilitate access to its establishment grant programs and that, at the end of a five-year transition period, a college diploma in agriculture (or equivalent, relevant training) be considered the minimum level of training in order to receive this financial assistance
- 20.** That all farmers who do not have the equivalent of a technical training diploma be strongly encouraged to enroll in a personalized training program enabling them to acquire the skills of an agriculture professional and that, to this end
- ITA design and implement, with the assistance of regional establishments, a system to recognize the on-the-job skills that farmers and agriculture and agrifood workers have acquired
 - ITA develop a continuous learning plan whereby farmers could enroll in a program that fits with their working conditions, imparts the skills needed by an agriculture professional, and leads to a diploma of collegial studies in agriculture or the equivalent
- 21.** That every five years farmers with college diplomas be strongly encouraged to take refresher training, designed and coordinated by ITA in various regions, and that this training be officially recognized
- 22.** That incentives be offered to farmers in order to facilitate continuous learning, notably
- A special incentive program for farmers and workers enrolled in a training program leading to a diploma that would cover 75% of training-related expenses for the first five years and 50% of expenses for five years thereafter, including travel expenses and the cost of replacing the farmer or worker on the farm
 - The obligation for farmers who ask La Financière agricole to significantly increase their credit or loan guarantee amounts to show that they are qualified agriculture professionals or that they firmly commit to taking steps to achieve this goal under a timeframe agreed upon with La Financière agricole
 - Reduced premiums on some types of agricultural insurance for agriculture professionals and increased premiums for farmers without professional status and who are not enrolled in training programs, because enhancing skills makes for better management and thereby minimizes risks

Worker Training and Development

- 23.** That MAPAQ, the ministry responsible for immigration, and job market partners in the agriculture and agrifood sectors develop an immigrant attraction and selection strategy for unskilled and skilled jobs in the sector and that this strategy include temporary workers and permanent immigrants
- 24.** That MAPAQ, in cooperation with Ministère du Travail and the federal government, finalize protective measures for seasonal migrant workers so as to guarantee them lodging, working, and social conditions in accordance with their rights
- 25.** That the government encourage greater use of advisory services by farmers, and to do this it should
- Ensure that the mode of financing for advisory services is compatible with their use by farmer groups and with a global approach to the long term needs of farm businesses
 - Ensure that management and entrepreneurship advice is available in all agricultural regions in Québec
 - Take into account the continuing education needs of advisors in the financing of advisory services
 - Provide basic financial support to regional farm establishment centers because of their multidisciplinary approach and the unique services they provide to young farmers
 - Grant financial assistance to agroenvironment advisory services that takes into account their responsibilities, especially with regard to assisting farmers with cross compliance
- 26.** That Ordre des agronomes du Québec make continuing education mandatory for its members and that universities enhance their training activities and make them available in the regions

Research and Innovation

- 27.** That the government allocate more resources to research and innovation in the agricultural and agrifood sector, mainly by
- Revising its budget priorities
 - Introducing a levy on certain targeted agricultural products, to be used for research and innovation under partnership agreements with agrifood system stakeholders
 - Granting a refundable tax credit to farm producers and other agrifood businesses, which can be applied to the levies on agricultural products, to support research, development, and technology and knowledge transfer
- 28.** That research priorities be based on the strengths of Québec agriculture, the priority issues on which its development depends, and the specific needs of its northern climate, from two decisive perspectives:
- Health concerns
 - The importance of environmental protection
- 29.** That the government improve the efficiency of research and technology transfer organizations, notably by adopting the following measures:
- Make government financial aid contingent on actual networking of all research and technology transfer centers, by associating them with a lead research center in their field of expertise, make the lead center responsible for coordinating all organizations in the field, and provide the lead center with funding for that purpose
 - Encourage the main research centers to establish partnership ties with certain international research centers
 - Streamline technology transfer services by requiring granting ministries to coordinate their actions, specifying the results expected of each technology transfer center, and having them pursue more complementary initiatives
 - Make a significant share of the funding for these organizations subject to their actual networking efforts and the extent of the service agreements or contracts they have signed with the firms in their field
 - Consolidate existing centers before creating new ones
 - Grant special financial assistance to firms that create a research center or attract to Québec international research business outsourced by a multinational company and that establish ties with international research centers
- 30.** That MAPAQ create and periodically revise, with institutional and private partners in the field, a research & innovation framework plan outlining research priorities, setting results targets, and specifying certain guidelines for the networking of research and transfer organizations

The Environment

- 31.** That ministries coordinate their environmental interventions with farmers, attempt to harmonize their actions with those of municipal leaders, offer to work with farmers, and ensure more rigorous monitoring of compliance with environmental regulations
- 32.** That Ministère du Développement durable, de l'Environnement et des Parcs (MDDEP) prepare a detailed situation analysis of Québec water quality for the period 2007–2009 and periodically update it thereafter
- 33.** That any programs granting farmers property tax remissions, financial support, or income stabilization be subject to cross compliance rules, including the following requirements:
 - Respect of all environmental regulations in effect
 - Development for all farm enterprises of an agroenvironmental report with specific, maximum phosphorus, nitrogen, and pesticide target levels, updated every three years and compliant with drainage basin objectives, if any
 - Use of best farm practices for each farm, taking into consideration the crops and livestock the farm produces, the topography of its farmland, and soil quality
- 34.** That an inspector assigned by MDDEP periodically visit each farm enterprise to verify that a valid agroenvironmental plan is in place and being followed
- 35.** That protection of certain ecological sites and production of environmentally related goods be the subject of long term agreements between the competent regional county municipalities and farmers, supported by MAPAQ and MDDEP, and that such agreements provide for payment to farmers by the Québec government or concerned municipalities to compensate for lost income or to defray expenses incurred in developing environmental goods
- 36.** That the Government promote the production of biogas, particularly from agricultural and animal waste, by granting financial support to farmers' collectives or offering to buy electricity produced by their facilities on long term contracts and at rates compatible with the costs incurred

The Environment

- 37.** That the Government of Québec revise its water policy with regard to drainage basins so as to
- Better identify respective government and municipality responsibilities for water policy and drainage basin management
 - Make drainage basin management a part of its integrated vision of land management and ensure that provincial and municipal land use planning and development tools make allowance for data and requirements contained in water master plans
 - Grant adequate funding to drainage basin organizations by increasing resources from the government and municipalities
- 38.** That MAPAQ, farmer representatives, and others in the agrifood sector agree to a preventive action plan for animal welfare
- 39.** That Québec lead federal and provincial government efforts to have the following measures adopted with regard to genetically modified organisms:
- Allocation of special funds to research the effects that genetically modified organisms have on the environment and health
 - Strengthening of the process for certifying products that contain GMOs and conduct of a research program on the long term effects of each certified genetically modified organism
 - Access to scientific information provided during the certification process by producers of genetically modified seed
 - Signing of agreements between the Government and Québec or other Canadian seed producers so that farmers are free to plant genetically modified or unmodified crops
 - Immediate implementation of analysis and traceability measures that allow the general labeling of GM products in Canada

The Environment

- 40.** That in regard to genetically modified organisms, the Québec government
- Form a multidisciplinary committee reporting to Conseil de la science et de la technologie tasked with advising the government and informing the populace on scientific, economic, social, environmental, ethical, and healthcare issues associated with genetically modified organisms
 - Specify parameters that protect organic farming against contamination from genetically modified organisms, in accordance with the laws currently in effect in Québec
 - Designate GMO-free control or “test” zones, using the same procedure as for designating ecological preserves
 - Offer municipal officials and farmers the chance to identify GMO-free agricultural zones within their agricultural zone development plans or product differentiation processes, and to identify agricultural products using a “reserve appellation” system

Food, Health, and Consumer Expectations

- 41.** That the agriculture and agrifood sector make health a core focus of its growth and that the Québec government's new agricultural policy focus on general health and healthy eating goals. To this end, that the government
- Encourage the development of differentiated Québec products certified to be grown/raised free of pesticides, growth hormones, or antibiotics used as growth factors
 - Develop strategies that encourage researchers and the agricultural and agrifood sector to minimize the use of synthetic pesticides and growth hormones
 - Take the lead within federal and provincial forums to ban the use of antibiotics as growth factors in Canada
 - Provide incentives for the entire agrifood industry to complete its deployment of quality control and risk management measures, so as to meet the highest food safety standards
 - Accelerate traceability system deployment and urge the federal government and other provinces to do the same
 - Support processors in their research, innovation, and marketing efforts to develop food products that are good for health
 - Invite professional dietitian associations and universities to offer services and training more finely attuned to the needs of food processing companies and aimed at helping processors develop and market differentiated food products recognized as being part of a healthy diet
 - Provide resources to research institutions and tax credits to interested private enterprises to promote the development of functional foods and nutraceuticals
 - Solicit the agriculture and agrifood sector's active participation in the implementation of action plans to promote healthy lifestyles and eating habits
 - Support and promote the development of the Human Nutrition Reference Center so that it may extend its online services and put in place a call center on food and health, to offer simple, factual information on both the healthiest food choices and on specific foods and food in general
 - Urge the federal government to
 - Begin revising the food product labeling system, to provide consumers with even simpler, clearer, more relevant information about the nutritional content of agricultural and food products
 - Strengthen the approval procedures for genetically modified organisms and new products used as agricultural inputs
 - Halt the import into Canada, through more rigorous food inspection, of products containing residues banned in Canada or meat from animals fed substances banned in Canada because of their health risks
 - Ensure that Canadian food importers fulfill their responsibilities to guarantee the safety of the food they are bringing in from other countries

The Protection of Agricultural Land and Regional Development

- 42.** That Québec agricultural land be treated as a collective heritage subject to special protection measures in order to ensure the long term survival of agricultural activities with a view to sustainable development. To this end,
- That issues regarding the exclusion or inclusion of land from the permanent agricultural zone continue to be handled by Commission de protection du territoire agricole du Québec (CPTAQ), an independent administrative body
 - That the Minister of Municipal Affairs and Regions instruct metropolitan communities and regional county municipalities (RCMs) that they must respect the December 31, 2009 deadline for submitting their revised master plans, and instruct the government to approve these plans no later than May 30, 2010
 - That as of June 1, 2010, any application for the inclusion or exclusion of a portion of land in the permanent agricultural zone submitted by an metropolitan community, an RCM, or a municipality be reviewed by CPTAQ further to revision of the master plan and that the *Act respecting the preservation of agricultural land and agricultural activities* be subsequently amended
 - That as of June 1, 2010, CPTAQ no longer accept individual applications for the exclusion of lots in permanent agricultural zones for residential purposes
- 43.** That agricultural land serve as a basis for rural development, with a view to ensuring multifunctional agriculture and dynamic land use. To this end,
- That CPTAQ draw up a list of activities that are allowable in the green zone on certain conditions and that no longer require prior approval, such as the establishment of certain types of smaller farms, and that this list be approved by the government and take the form of a regulation binding CPTAQ and municipal authorities
 - Furthermore, that with regard to activities not listed, CPTAQ revise its enforcement rules for the permanent agricultural zone in order to also allow agricultural production and processing activities that use less land, require smaller facilities, combine agricultural and complementary activities, or whose promoters do not wish to operate full-time farming outfits, provided that these projects are viable and managed by people qualified to carry them out

The Protection of Agricultural Land and Regional Development

44.

That rural land development be planned according to a management approach that promotes local or regional citizen participation with a view to dynamic land use and, consequently,

- That RCMs and metropolitan communities, following revision of their master plans, adopt development plans for their respective permanent agricultural zones and submit to CPTAQ their vision for use of the green zones
- That the act be amended to allow CPTAQ to delegate responsibility for enforcing provisions regarding which activities are authorized in the permanent agricultural zone to metropolitan communities and RCMs that have revised their master plans and adopted development plans for their permanent agricultural zones
- That in reviewing collective applications submitted to CPTAQ by an RCM or metropolitan community, Union des producteurs agricoles (UPA) send the Commission an opinion that must be considered, but that the Commission's decision not be subject to UPA approval
- That discussions regarding the coexistence of agricultural and nonagricultural activities be held locally and regionally, and that interim control bylaws consistent with government policies be developed after reaching a consensus with agricultural organizations in the community
- That the government adopt a simplified procedure for assessing the environmental impacts of agricultural sector projects that raise environmental protection or coexistence issues, and that project authorization certificates be issued only after this assessment is complete

The Use of Agriculture for Reasons Other Than Food Production

- 45.** That the Government of Québec encourage and guide the use of agriculture for the production of biofuels and other bioproducts, with consideration for the diversification of agricultural activities and the multiple uses of agriculture, the revitalization of rural communities, the economic viability of each project, environmental protection, and social acceptability, and should in this regard
- Focus its research efforts on the use of cellulose to produce biofuel and biogas as well as on the environmental, economic, and social consequences of various production methods
 - Recognize that biofuel and bioproducts hold out a great deal of potential for increasing the revenue of farmers and diversifying rural economies and accord its support to the development of these new production methods insofar as they are compatible with the points mentioned above
 - Ensure that its energy strategy and agricultural policies are in harmony with and promote the development of a biofuel market that respects the principles of sustainable development

Governance

- 46.** That the Government of Québec support MAPAQ's efforts to demonstrate true leadership in developing the agriculture and agrifood sector, notably by
- Strengthening teams responsible for analyzing, exploring, and developing the vision and bolstering partnerships and collaboration with a variety of industry stakeholders
 - Revising MAPAQ resource allocation priorities
 - Converting MAPAQ's property tax remission program to a refundable property tax credit whereby all farmers would receive the same monetary compensation as currently, at similar conditions, for the property taxes owing on their farm businesses
 - Levying a charge on food retail outlets based on their total floor space to finance food inspection services and thereby ensure a stable source of revenue for these services essential to the health and protection of consumers
 - Increasing staffing levels in animal health and food inspection and stepping up collaboration with Ministère de la Santé et des Services sociaux on these issues
 - More clearly affirming MAPAQ's mission, notably by involving the agriculture and agrifood sector more in the attainment of the health and healthy eating objectives set out in government strategies and by adopting a preventive approach to animal health and the environment
- 47.** That all Québec farmers join a representative professional association and that they have the opportunity to reconfirm their choice at preset intervals, and to this end,
- That the *Farm Producers Act* be amended to incorporate objective criteria for recognizing any number of professional farmer associations, that to be recognized as such an association be required to demonstrate to RMAAQ that it represents a significant number of farmers involved in a range of livestock and crop farming activities and has representative structures in various regions of Québec, and that the Act further identify accreditation criteria for farmer associations and set out procedures for consulting farmers
 - That recognition of a professional farmer association be valid for five years, at the end of which the association must demonstrate that it still meets the criteria for recognition
 - That the National Assembly of Québec appoint the chief electoral officer to advise RMAAQ on the establishment of the accreditation process for professional farmer associations
 - That every five years at the time farmers register as agricultural producers, MAPAQ then ask farmers which representative association they wish to belong to
 - That after coming to an agreement with the representative association(s), MAPAQ be able to collect annual dues from farmers when they register as agricultural producers and send the dues to the designated association(s)

Governance

48. That the government immediately modify the La Financière agricole du Québec board of directors to comply with the provisions of the *Act respecting the governance of state-owned enterprises and amending various legislative provisions*

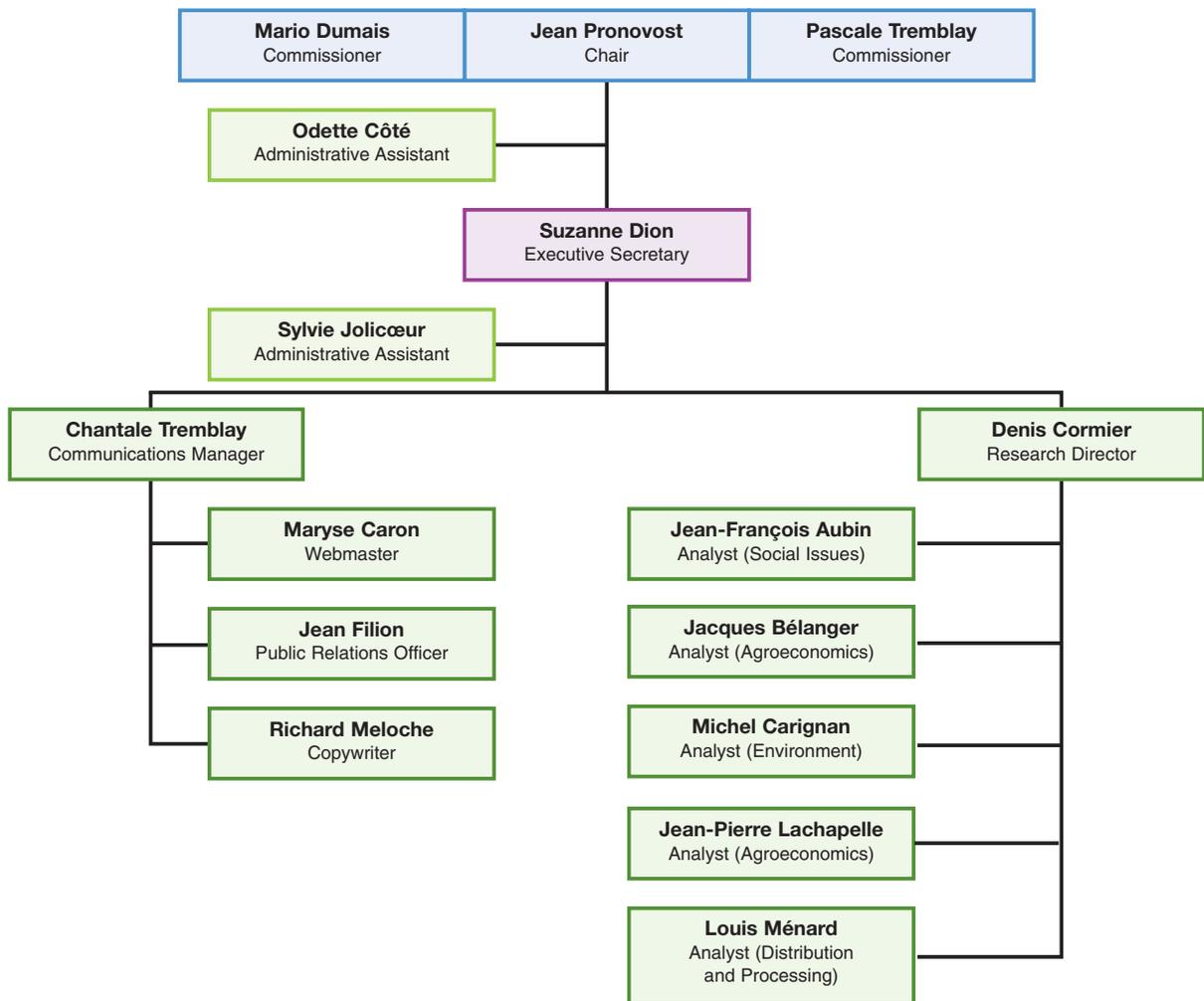
49. That the Government of Québec and its partners in the agriculture and agrifood sector join forces to seek the following from the federal government:

- An adequate share of the financial resources devoted to this sector
- A tightening of the food inspection and product certification system so that the health of Canadians and Quebecers is sufficiently protected and that Québec farmers who comply with these standards are treated fairly
- An increase in research and innovation partnerships with Québec institutions and businesses
- Greater leadership by the Government of Canada on the international scene with regard to agriculture and the World Trade Organization rules, notably through
 - The inclusion of supply management in a broader vision of the special treatment of agriculture in trade
 - The active identification of allies, particularly the governments of developed countries, so that it is recognized once and for all that agricultural products do not have a strict commercial value and that consequently trade agreements can leave room for domestic policies that reserve a special role for local production
 - The promotion of the principle of the special treatment of agriculture in trade and the identification of allies within international bodies other than the World Trade Organization that address issues related to food, health, the environment, regional development, and human development

Appendix 3: Commission Staff



ORGANIZATIONAL CHART



Other members

The following people also worked with the Commission in completing this project:

Jean Dionne, Communications Manager

France Pelletier, Communications Consultant

Gino Desrosiers, Communications Consultant