



Putting Canada First

AN ARCHITECTURE FOR AGRICULTURAL
POLICY IN THE 21ST CENTURY

THE LATEST SCIENCE DEVELOPMENTS
OFFER MANY OPPORTUNITIES FOR THE
AGRICULTURE AND AGRI-FOOD SECTOR.

Science and Innovation

The Government of Canada and the provincial and territorial governments are working with the agriculture and agri-food industry and interested Canadians to develop an architecture for agricultural policy for the 21st century. The objective is for Canada to be the world leader in food safety, innovation and environmentally-responsible production.

To realize this vision, governments have agreed in principle on an action plan for an agricultural policy framework composed of five elements: food safety and food quality, environment, science and innovation, renewal, and business risk management. The framework, which is based on the setting of common goals for each element, entails important benefits for the sector and ultimately the general public.

Accordingly, governments have launched a national dialogue about the policy direction with stakeholders and interested Canadians to develop the proposed policy approach. This **consultation** document is one of a series of publications dedicated to that end. To obtain additional information and contribute to this important dialogue, visit www.agr.gc.ca/puttingcanadafirst or call 1 800 O-Canada (1 800 622-6232).

Agriculture is applied science and innovation in action ...

The agriculture and agri-food sector has always been profoundly affected by science and technology. The farm practices of today could hardly be imagined 50 years ago. The agricultural production and processing chain—from farm inputs to consumption—is also evolving. In recent years, innovations and advances in science and technology have made the pace of change quicker than ever.

“We’re on the verge of yet another revolution. Biology is transforming to a science based upon information... We’re seeing the convergence of biotechnology with information technology. We’re seeing the convergence of biotechnologies with materials technologies, and we’re going to see the impact of biotechnology across all sectors of the economy. The new economy only comes from intensive research and development.”

Peter A. Hackett, Vice-President of the National Research Council

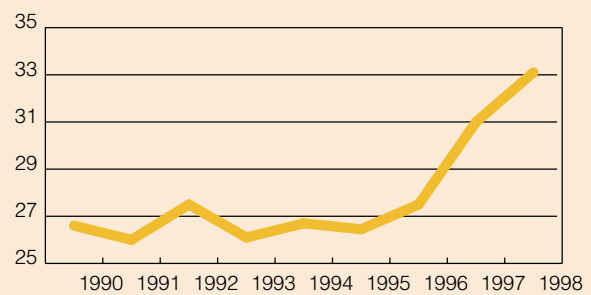
... and it’s changing rapidly

Rapid advances in such fields as biology and chemistry, combined with the ever-increasing power of new information and communications technologies, have fueled significant growth in the bioeconomy. At the same time, once distinct fields of enquiry such as plant and animal sciences, or environmental and health sciences and once distinct businesses such as agriculture, chemicals, health care and pharmaceuticals are converging. This convergence has accelerated the pace of research activity, as demonstrated by increases in Canadian patenting activity shown in the graph below.

The pace of innovation is increasing

Patenting Activity in Canada 1990-98

Applications Filed ('000s)



Source: Canadian Intellectual Property Office

With change comes opportunity

The latest science developments offer many opportunities for the agriculture and agri-food sector. New applications for agricultural commodities are being developed such as nutraceuticals, sources of medicinal substances and renewable fuels. Taking advantage of these innovations could help to increase incomes through diversification of farm business, shift consumption from non-renewable to renewable resources, improve environmental practices and enhance food safety and quality systems.

“Ministers agree that innovation through the sound application of science and research will be key to creating additional economic opportunities for the agriculture and agri-food sector, strengthening environmental stewardship and improving food safety, as well as addressing many forms of risk.”

Federal–Provincial–Territorial Ministers of Agriculture Agreement in Principle on an Action Plan for an Agricultural Policy Framework, June 2001

Working together for success

Responsibility for innovation in the sector is shared by many players. The complex set of relationships that connect research and technology development to end users, including farmers, cuts across industry and government. The research component of innovation includes government research centres, colleges and universities, and private-sector laboratories.

“Ministers recognize that the benefits of the life sciences will be realized only through collaboration and coordination across many scientific disciplines and research organizations.”

Federal–Provincial–Territorial Ministers of Agriculture Agreement in Principle on an Action Plan for an Agricultural Policy Framework, June 2001

To get all players working toward the same goals, it is critical to strengthen the links and coordinate efforts among them. There are many joint efforts among the various institutions throughout the research and innovation chain, which are promoted by a broad spectrum of informal and formal arrangements. These collaborations could be strengthened and expanded.

The right environment will foster innovation

To become the world leader in agriculture and agri-food, Canada must move quickly to encourage research and development and to quickly get the resulting innovations into the hands of farmers and other end users.

It is therefore important to foster a business environment that is conducive to research and development, and that encourages public and private funding of agricultural research and the early application of research results. This could be achieved through appropriate investments and close collaboration among all players in the innovation chain.

Science collaboration at its best—Soy 20/20

Soy 20/20 is a proposed collaboration of the University of Guelph, all levels of industry and government in Canada whose goal is to establish the Canadian soybean industry as the world leader in value-added markets. It plans to achieve this through:

- a strategy for the global marketplace, including improved linkages through the production and processing chain;
- investigation into opportunities for, and barriers to, value-added processing;
- exploration of new markets, such as food-grade soybeans, organically produced products, nutraceuticals, plastics and other industrial uses;
- investigation into the research capacity and potential synergy among institutions;
- a forum on investments in new components of the production and processing chain; and
- analysis of consumer, industrial and technological trends that are driving demand for specific soybean traits.

“Ministers also recognize that economic benefits will accrue to nations that first develop and bring to market new products and processes.”

Federal–Provincial–Territorial Ministers of Agriculture Agreement in Principle on an Action Plan for an Agricultural Policy Framework, June 2001

Consumer and industry confidence is key to moving new products and technologies through the innovation chain. Strengthened stewardship would reinforce the confidence that consumers and stakeholders have in the safety, food quality and benefits of innovative products and practices.



Finally, the promise that science and innovation hold for Canadian agriculture is achievable only if the sector—producers, processors and distributors—know about and adopt innovative technologies and practices. It is crucial, therefore, to help the sector take advantage of the latest production and management techniques, including those that have food safety, food quality and environmental benefits.

A new approach to leveraging science and innovation into excellence

Science and innovation are the cornerstone of all efforts to make the Canadian agriculture and agri-food sector the world leader and to support its future success and prosperity. With this in mind, Ministers of Agriculture have committed to work together and with industry towards a set of common goals to increase the economic benefits to producers and processors while positively contributing to the environment, health of consumers and Canada's economy. Among the common goals being considered are:

- to increase/realign investments to support the national science and innovation initiatives in the priority areas of the APF (i.e. the environment, food safety, renewal and risk management) and biomass, bioproduct and bioprocess research;
- to increase the amount of investment in agriculture and bioproducts (e.g. nutraceuticals) accessed from non-agricultural sources within Canada and elsewhere;
- to facilitate the adoption of new economic opportunities based on innovative agriculturally-based products and knowledge;
- to expand and strengthen linkages with the global science and innovation community so that Canada's agriculture and food industry can benefit from the international pool of scientific knowledge and discoveries;
- to improve communications and increase collaboration and coordination across market, policy and scientific disciplines, research organizations and throughout the agri-food value chain;

- to address human resources requirements of the sector; and
- to better utilize intellectual property from publicly supported research.

The Government of Canada and provincial and territorial governments working with industry are considering a range of options on how best to meet these goals. One option is to build and strengthen communication links throughout the value chain. Another is for Canada to promote the establishment of science-based domestic and international standards. This would help capture new and premium markets around the world and maintain existing ones. Yet another option is to develop a national strategic approach to attract foreign investment in Canada's agricultural life sciences.

Conclusion

Putting the Canadian agriculture and agri-food sector first requires a national vision and a national partnership. Governments and industry moving forward collectively to integrate all elements of the proposed APF would enable us to brand Canada as the world leader in:

- the production of safe food in an environmentally-responsible manner;
- meeting and exceeding diverse market specifications for quality; and
- innovation throughout the agri-food value chain so that investors and customers can be confident in Canada's ability to succeed today and into the future.

Branding Canada as the world leader in these areas will contribute to the continued growth and increased prosperity of the Canadian agriculture and agri-food sector by capturing new markets and customers.

To learn more about this Federal-Provincial-Territorial initiative, contact: www.agr.gc.ca/puttingcanadafirst or 1 800 O-Canada (1 800 622-6232).