

Helping Canada Grow

We have shaped the land, but the land has also shaped us. The history of Canada is in many ways a history of our relationship with the soil.

Farming was so important to our young nation that 1 year after Confederation, Parliament established the Dominion Department of Agriculture. It replaced the Bureau of Agriculture of the Province of Canada. From that time, the department thrived, conducting research and providing financial support to our farmers, inspecting and grading agricultural food products, and marketing these important Canadian commodities. What began with 27 people has grown to more than 12 000 today.

The first agricultural activity of the department (originally it had many responsibilities besides agriculture) concerned the health of Canadian livestock. The 1869 *Act respecting Contagious Diseases affecting Animals* laid the foundation of our animal health policies. From this, the department developed extensive inspection operations that control diseases in our livestock.

As a new country, Canada presented many problems to the largely immigrant farming population. The short growing season, the rigorous climate and the unfamiliar soils frustrated the efforts of farmers experienced in European agriculture. Parliament responded by establishing five experi-

mental farms across the country. These farms tested farming methods, livestock breeds and plant varieties to find the best for each of Canada's very different regions.

As the country grew, adding provinces and opening up to immigrants, its agricultural needs changed. The department continually met the challenge, establishing a dairy branch (1889), insect control measures (1898), a seed division (1902), a livestock branch (1905), an entomology branch (1914) and more experimental farms through the years.

With this century came new challenges, such as the introduction of product grading in the 1920s, the prairie drought of the depression during the 1930s and the need for price support starting in the 1940s. In the 1950s and 1960s, the department concentrated on product inspection and standards, and product marketing.

In the 1980s, economic and regional development agreements (ERDAs) were built upon federal-provincial agreements of the 1970s. They have wide-ranging goals, including development of infrastructure (large water supply systems and other facilities to support farming), improvement in production, resource conservation and market development. The Atlantic Livestock Feed Improvement Agreement, for example, helps farmers improve production and development of locally grown livestock feed, reducing their dependence on outside feed sources. ERDAs also fund research and transfer of new technological developments, such as advances in horticulture in Prince Edward Island and new research into soil conservation in Saskatchewan.



Indeed, among the biggest changes of this century have been the enormous advances in technology. To transfer a new development to producers, the department used to distribute the plants and seeds developed by the experimental farms directly to farmers. Now Canadian farmers learn about the newest findings of the experimental farms through Agriculture Canada exhibits, publications and other media.

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Better methods, better products

Agricultural research has shaped our economy, and it benefits all Canadians. Canada became a leading exporter of wheat because of the work done by William Saunders, the first director of the experimental farms, and his son Charles. They developed the Marquis strain of wheat, so well suited to our short growing season. Within 20 years of its introduction at the turn of the century, this early ripening variety accounted for 90% of Canadian wheat. Today newer and even better varieties have replaced it in our wheat fields, but Marquis remains the standard of quality by which all bread wheat varieties are measured.

Canola is another research success story. During the Second World War, Canadians grew rapeseed to produce a greenish lubricating oil, but after the war demand dropped. Yet, in years of low wheat prices, farmers were looking for an alternative crop that would fetch good prices in the international marketplace. Through persistent efforts, scientists were able to breed out a large part of rapeseed's chief toxic substances, erucic acid and sulphur compounds, as well as its unappetizing color. They named the new varieties canola. It is now Canada's leading oilseed crop. We use two fifths of production in cooking oil and livestock feeds and export the rest. Japan is our biggest buyer. Canada is the world's third largest producer and the top exporter of rapeseed.

The department studies all aspects of agriculture:

- animal and crop production,
- weed, insect and disease control,
- horticulture,
- soil use and fertility,
- the use of water and irrigation techniques,
- agricultural engineering,
- processing and storage technology and
- food safety and nutrition.

Livestock research improves breeding practices, livestock nutrition and feed conversion, that is, how much an animal grows for the amount of feed it eats. Animal-disease scientists examine



organisms that cause or transmit disease and develop tests for detecting disease. The department uses this research to develop disease-control programs.



Horticultural research gives us new fruit and vegetable varieties with higher yields, which are better suited to certain climate or soil conditions and resistant to disease or insects. Agriculture Canada also identifies plants, insects and fungi for government agencies and agricultural scientists.

When departmental scientists study food, they examine what happens from the time a seed is planted or an animal is born, through to the time it becomes food on the table. The newest of Agriculture Canada's food research

establishments, the Food Research Centre in Saint Hyacinthe, Quebec, opened in 1987. It looks for ways to improve the vitamin, mineral and other nutrient content of food, and to prevent the contamination of food products as they are processed, packaged and stored. Among the newest research subjects is food irradiation.

Backing our farmers

Farmers face many risks — market prices fluctuate, disease can destroy an entire crop or herd, and the weather can make or break a harvest. Agriculture Canada and farmers work together to prepare for the difficult times, as well as to make the most of the prosperous ones.

Capital projects

When farmers want to buy land, equipment or livestock, repair or erect farm buildings or overhaul farming equipment, the department guarantees loans to them by financial institutions, encouraging short-term credit when they need it. When necessary, farmers can also look to the Farm Credit Corporation (FCC) for long-term credit to establish, develop and maintain viable

farm enterprises. The FCC lends money to farmers directly and offers financial counseling and other services.

Crops

Advance payments for storable crops also help out Canadian farmers. The department guarantees and provides interest-free loans to producer groups, which subsequently pay their members. The farmers can then store their crop until market conditions improve. Grain producers under the Canadian Wheat Board have a similar program.

Livestock feeds

Animals do not stop eating because there is a feed shortage or because feed prices are too high. The Livestock Feed

Board makes sure feedgrains are available to all regions of the country and that there is adequate storage to hold them. The board also administers the Feed Freight Assistance Program, which offsets the cost of transporting feedgrains from surplus areas to areas suffering a feed shortage.

Insurance

Natural, uncontrollable forces — hail, drought, frost and sometimes insects and disease — destroy crops and severely strain the finances of Canadian farmers. Agriculture Canada contributes to provincial crop insurance programs (in some cases, sharing the administrative costs with the province), thus reducing the premiums farmers have to pay.

Agriculture Canada activates special programs when a problem escalates, for example, when there is a prolonged drought or a severely depressed market.

Price fluctuations

If the market becomes depressed just when farmers have products to sell, they could face financial ruin. The Agricultural Products Board buys surplus commodities and sells or exports them when market conditions improve.

The Agricultural Stabilization Board supports commodity prices when they fall below an established level. Stabilization payments make up most of the difference when the commodity market price is lower than 90% of the average market price for the previous 5 years. These payments help Canadian farmers recover production expenses when the market price for hogs, sheep, cattle, soybeans, corn, spring and winter wheat, barley, oats and selected other farm goods falls below what it costs to produce them.

The world grain market has become particularly unstable over the past few decades. Prices have been low despite efforts by the Canadian Wheat Board to negotiate a fair selling price. The



Western Grain Stabilization Administration makes stabilization payments to western grain producers to cushion the effects of drastic price drops. Grain growers contribute to this program by paying into a stabilization account.

The Canadian Dairy Commission develops and implements a national dairy policy that serves both dairy producers and consumers. The commission ensures that a balance exists between dairy product supply and demand, and that markets remain stable, particularly for industrial cream



and milk (milk needed to manufacture milk products). This can mean stepping in to stabilize milk and cream prices or purchasing, storing or processing dairy products. The commission also promotes the dairy industry and investigates new marketing strategies to increase the quantity, quality and diversity of Canadian dairy products. Its efforts ensure high-quality dairy products at reasonable prices to consumers and a fair return for labor and investment to farmers.

Keeping our livestock and crops healthy

With the agricultural and food industry representing more than 10% of our gross domestic product, we have to make sure our livestock and crops stay healthy.

Canada allows importation of animals from countries where livestock diseases are adequately controlled. An animal must have its health certified before being shipped and may still be quarantined on entry to the country.



Agriculture Canada also tests, quarantines (for diseases such as brucellosis, which causes spontaneous abortion in cattle) or slaughters domestic livestock infected with contagious diseases. The department compensates owners for livestock that must be slaughtered in efforts to control brucellosis, tuberculosis, rabies and other diseases. It also provides diagnostic services to veterinarians and livestock owners through its animal pathology laboratories.

We must also protect our plants by keeping harmful insects and plant diseases out of the country. Importers obtain permits for incoming plants, knowing they must pass inspection or be quarantined. Canada also prohibits

the importation of soil and restricts the movement of soil between Canadian regions to stop the spread of soil-borne organisms such as the golden nematode from Newfoundland and British Columbia. The department can also quarantine areas to contain insect pests and plant diseases.

Ensuring quality

Agriculture Canada inspects agricultural products and the facilities and equipment needed to process them. The department grades fruit, vegetables, meat, poultry, eggs and egg and dairy products. Strict monitoring ensures that Canadian agricultural products are suitable for human consumption and processed under hygienic



conditions. Quality assurance also keeps Canada competitive on the international agricultural market.

The department is there every step of the way:

- ensuring an adequate supply of healthy seeds, by monitoring their sale and testing them for purity,
- sampling and analyzing some, and registering all fertilizers, pesticides, livestock feeds and pedigreed seed,
- inspecting dairies and their products,
- inspecting and grading both domestic and imported fruits and vegetables and
- encouraging production of top-quality Canadian meats and poultry through a rigorous inspection and grading system.



The Canadian Grain Commission sets standards of quality for all our grain. When grading grain, the commission examines many factors, including weight, maturity, percentage of shrunken or damaged kernels and insect damage. The commission also inspects equipment and facilities for handling grain, and issues dealer and elevator licences. Through its inspections, the commission protects Canada's reputation as an exporter of top-quality grain.

Conserving our resources

The prairie drought during the depression prompted departmental action on soil and water conservation.



The threat of drought still haunts our western farmers, and Agriculture Canada continues its search for ways to 'drought-proof' a farm. In Ontario, cropland runoff and soil erosion threaten the Great Lakes; the federal-provincial Soil and Water Environmental Enhancement Program (SWEET) explores ways to improve soil and water in southwestern Ontario. The department worries about pesticides contaminating water supplies anywhere in Canada. Departmental scientists study groundwater samples from areas where contamination is suspected, to determine the extent of the problem and to find ways to keep our drinking water clean.

The Canadian Forestry Service of Agriculture Canada makes sure our forests continue to thrive as a natural and recreational resource. The service protects Canadian forests by

- maintaining an up-to-date inventory of 'biomass', that is, all the living and decaying plants that make up our forests,
- forest fire management,
- controlling forest insects and disease,
- monitoring acid rain,
- encouraging investment in forestry resources,
- promoting forest renewal through resource development agreements with the provinces and
- research.

Selling our agricultural commodities

The agricultural and food industry is big business, employing about 15% of all Canadians and accounting for around 30% of Canadian exports. Top-quality products certainly contribute to this success, but we have to tell the world how good they are.

Agriculture Canada helps our agricultural producers spread the word, across Canada and around the world. The department prepares and distributes market information reports to the industry. Seminars, awareness campaigns and informative booklets promote Canadian products at home and abroad.





The National Farm Products Marketing Council advises the department on the establishment, operation and performance of marketing agencies for all farm products except those managed by the Wheat Board and Dairy Commission. By supervising marketing agencies, the council represents the public interest.

Canada exports billions of dollars of agricultural goods each year. Through trade missions, departmental representatives help find new buyers for Canadian goods. Agencies such as the Canadian Dairy Commission and the Canadian Wheat Board market our products abroad through trade missions of their own. As well as Canadian farm goods, the department helps to sell Canadian technology, such as our unique poultry deboning equipment and methods, to other countries. Agriculture Canada's participation in international agricultural conferences and trade fairs also promotes Canadian agricultural goods and technology.

Departmental economists forecast the quantities of agricultural products that are likely to be produced, the size of the market and prices of agricultural products, services (such as shipping) and essential materials (such as fertilizer

or feed). They also help identify market opportunities at home and abroad for Canadian farm products, and examine Canadian and foreign trade policies relating to tariffs on agricultural products.

Helping farmers around the world

Agriculture Canada helps developing countries make the best use of their farmland and animals. Through programs financed by the Canadian International Development Agency (CIDA), the department supports farming projects and research by providing the technology and the experts. In Tanzania, for example, Canadian research and technology are helping to grow more than half that country's wheat. Aid-trade programs benefit Canada economically as well as offering assistance. In Algeria the department worked on projects dealing with dairy farming and livestock; these activities not only encouraged Algerian agriculture, but also opened up a new market for Canadian agricultural goods and technology by proving their excellence.

The department also oversees Canada's pledges of agricultural goods to the



World Food Program and International Emergency Food Reserve. For many years, Canada's donations have been second only to those of the United States.

Commitment to service

Agriculture Canada will continue to serve Canadians. It will work with the provinces and other federal departments and agencies to give Canadian farmers security in their occupation, to develop the highest quality agricultural products that our growing conditions can produce, and to promote and sell our products.

Where to find out more

Agriculture Canada produces many publications, some of which are listed below, that describe departmental services in greater detail.

For the publications listed below or other information, contact Communications Branch, Agriculture Canada, Ottawa K1A 0C7.

General and Technical Publications A list of folders, pamphlets, booklets, periodicals and information services dealing with the basics of crop and livestock production, agricultural engineering and construction, careers in agriculture, food and miscellaneous agricultural subjects.

Federal agricultural legislation to 1985 Brief descriptions of the Acts of Parliament that the Minister of Agriculture administers.

