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A G R I C U L T U R E   A N D   A G R I - F O O D

# MOVING *forward*

INNOVATING FOR A SUSTAINABLE FUTURE

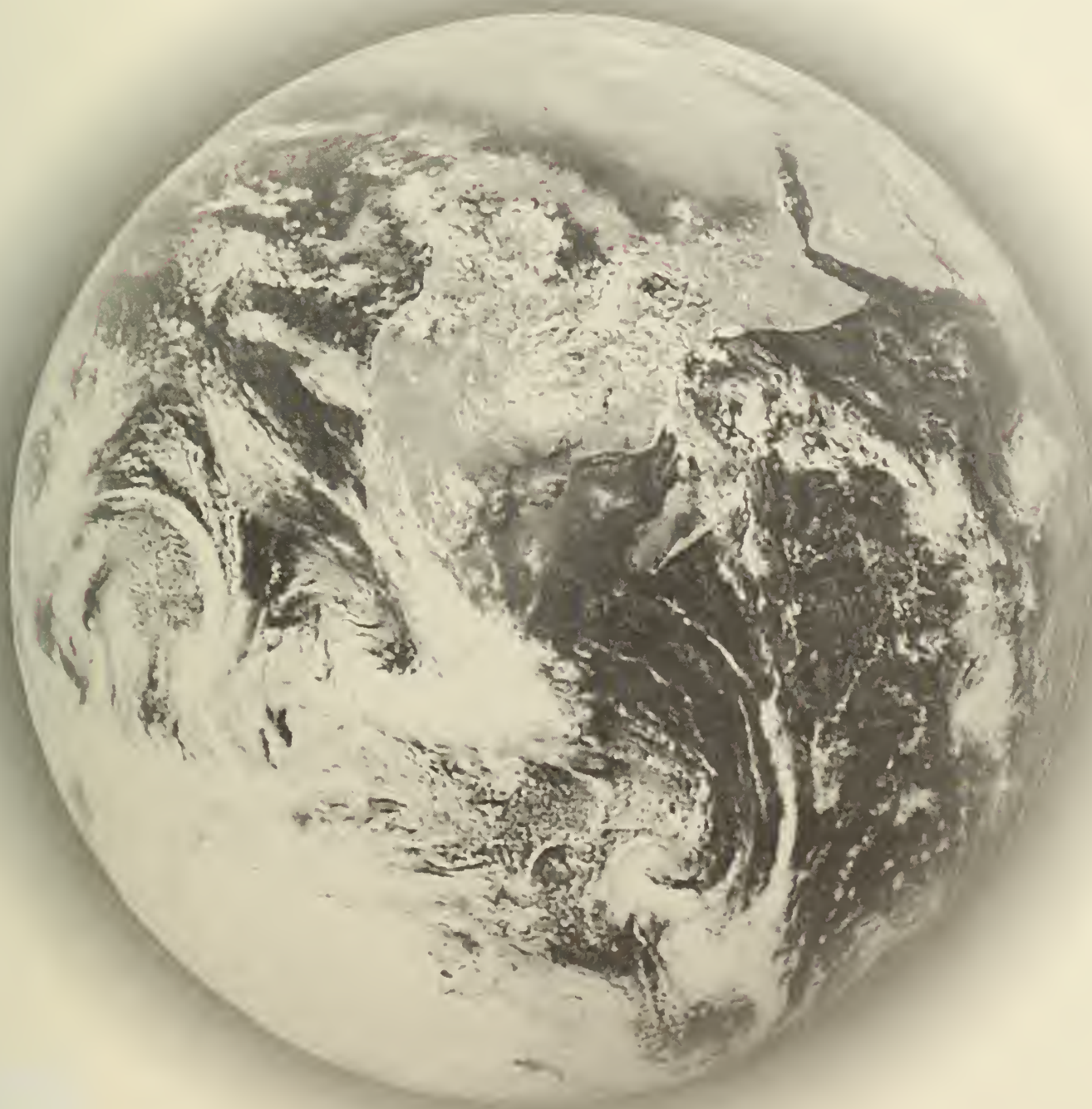


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THE GOVERNMENT OF CANADA'S ACHIEVEMENTS IN AGRICULTURE

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Agriculture and Agri-Food Canada has a long history of working to improve environment stewardship skills across the country. Indeed, more than 100 years have passed since our first experimental farms were established.

During the last century, many federal initiatives have served to protect agricultural resources, from the inception of the Prairie Farm Rehabilitation Administration (PFRA) during the dust-bowl of the 1930s to more recent environmental efforts, such as the National Soil Conservation Program and the agricultural component of the highly successful Green Plan.

We now understand better than ever the impact of production in agriculture and agri-food industries on the environment. The good news is that Canadian farmers, food processors and distributors, and governments are acting on this understanding.

And so there has been a shift in the environmental agenda: from traditional approaches that focused narrowly on conserving the productivity of the farm soil resource to new challenges that focus primarily on human health and

off-farm environmental concerns. These include water pollution from nitrates and bacteria, solid waste management (e.g. packaging) and impacts on biodiversity and the climate.

### THE GROWTH OF A NEW STEWARDSHIP ETHIC

Wise stewardship of natural resources is at the very heart of the survival of agriculture and agri-food production in Canada. Today there are clear signs that a stewardship ethic has grown in the agriculture and agri-food community. Farmers throughout the country have formed rural conservation clubs, adopted conservation tillage, developed environmental farm plans and codes of practice, and are actively maintaining and enhancing biodiversity.

Food processors are curbing water pollution through effluent treatment and reducing packaging waste. These activities have resulted in many environmental successes – reduced risk of soil erosion by wind and water, enhanced wildlife habitat, the control and elimination of toxic compounds found in many products used in agriculture, and reduced water pollution and landfill loading.

In its new environmental agenda, *A Guide to Green Government*, the federal government called upon its departments to devise sustainable development strategies. These must be tabled in Parliament by December 1997.

Agriculture and Agri-Food Canada's strategy will evolve over time but initially focuses on environmental sustainability with the goal of better integrating this concept into existing ways of doing business. This *Strategy for Environmentally Sustainable Agriculture and Agri-Food Development in Canada* has been developed with many sectoral and interest groups.

### THE NEED FOR SOUND SCIENCE

Agriculture and Agri-Food Canada recognizes that sound science plays a critical role in understanding and solving environmental problems. An important tenet of the department's research programs today is to ensure that new systems, technologies and practices enhance the ability of producers to monitor and preserve soil, water and genetic resources while avoiding the down-stream effects of agriculture on the environment.

The challenge for AAFC's Research Branch is to give clients a competitive edge in business without endangering the resource base on which future productivity depends. The Branch already has a strong record of responding quickly to environmental issues and producing innovations that improve business. Researchers are currently working on:

- soil and water conservation technology;
- alternative pest-management practices;
- a systematic method for genetic conservation;
- determining the agricultural contribution to greenhouse-gas balances;
- evaluating ethanol grains and byproducts from ethanol production for use as feeds or other industrial products;
- analytical methods to identify and assess environmental risks and trends in agriculture.

ENVIRONMENTAL TWIST ON ADAPTATION AND RURAL DEVELOPMENT

The \$60-million per year Canadian Adaptation and Rural Development Fund is designed to help eligible farm groups, agri-businesses and rural communities as they adapt to changes taking place in the sector. These changes include trade liberalization, policy and program changes, changes in consumer demand, technological advances but also new environmental requirements.

Provincial adaptation councils, such as the Manitoba Rural Adaptation Council and the Conseil pour le développement de l'agriculture du Québec have been set up to administer the federal adaptation fund and to receive proposals for local and regional initiatives.

REPLACING METHYL BROMIDE

**Methyl bromide, a broad-spectrum fumigant used in the Canadian agri-food industry to control pests and diseases in soil, facilities and commodities, has been listed as an ozone-depleting substance under the Montreal protocol. With the planned phase-out of this chemical in Canada, the food industry is actively searching for alternatives.**

**One new method to eliminate insect infestations was tested favourably in April 1996 at the Quaker Foods Oat Mill in Peterborough, Ontario. The test, a collaboration among members of the food processing and pest control industries, Agriculture and Agri-Food Canada, and the Ontario Ministry of Environment and Energy, resulted in a 98% kill of insect eggs and a 100% elimination of adult insects.**

Environmental issues are now considered when deciding how these funds are distributed. For example, Ontario's Agricultural Adaptation Council supports projects that strengthen the leadership and management of sustainable agricultural production and food processing, and protection of the agricultural land base.

PROMOTING SUSTAINABLE AGRICULTURE

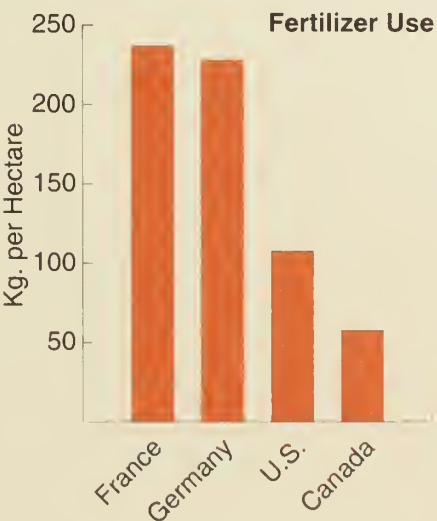
Created in April 1997, the new Canadian Food Inspection Agency will continue to perform many of the important functions related to environ-

mental sustainability that were part of the AAFC Food Production and Inspection Branch.

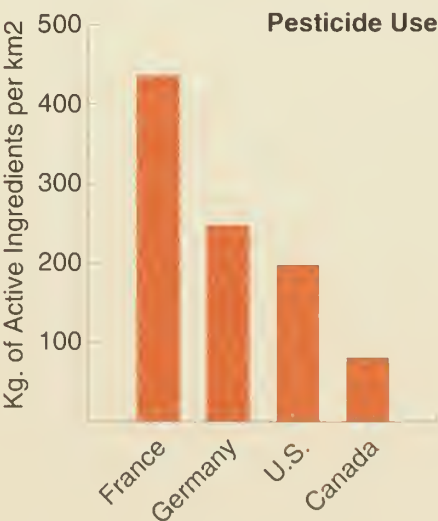
Examples of environmentally-related activities include enhancing the ability to conduct human health and environmental safety assessments of fertilizers and fertilizer supplements and facilitating the introduction of environmentally sound products.

Inspectors also conduct assessments of amendments to agricultural legislation, fumigation of storage facilities, licensing of animal vaccines, and importation of exotic animal species. They lead and

CANADA USES LESS FERTILIZER AND PESTICIDES THAN MANY OTHER COUNTRIES



Source: OECD Environmental Data: Compendium 1995



Source: Latest available data in OECD Environmental Data: Compendium 1995



coordinate departmental and sectoral activities relating to international negotiations on a biosafety protocol for the transboundary movement of living modified organisms, and carry out environmental assessments of agricultural products of biotechnology.

### CAPITALIZING ON MARKET OPPORTUNITIES

In addition to programs and services that assist the sector to enhance its domestic and international market performance, AAFC'S Market and Industry Services Branch priorities include providing information, intelligence and analysis.

Currently, MISB plays a role in the development of sustainable agriculture by:

- identifying opportunities that arise from the emphasis on environmental issues in market development;
- ensuring that decisions taken internationally reflect the interests of the agri-food industry;

- tracking environmental regulatory requirements that may present barriers to the Canadian agri-food industry;
- tracking consumer attitudes and buying habits with respect to environmental products.

### PROMOTING SUSTAINABLE DEVELOPMENT THROUGH PFRA

The Prairie Farm Rehabilitation Administration (PFRA) was established in 1935 to reclaim prairie farm land devastated by drought and drifting soil. PFRA has promoted sustainable development on the rural prairies ever since, balancing the often competing demands of economic growth and environmental stewardship.

- Under the Rural Water Development Program, PFRA has assisted rural prairie people with the planning, investigation and development of secure water supplies for more than 60 years.
- Through its Shelterbelt Centre in Indian Head, Saskatchewan, PFRA has provided more than 475 million tree seedlings to establish field shelterbelts which protect the land against erosion.

- A network of 87 community pastures covering 929,357 hectares provide farmers with land for grazing cattle, while at the same time, protecting marginal land from erosion, providing wildlife habitat, and preserving native grasses.

- Under the Permanent Cover Program, PFRA has provided financial and technical assistance to help producers to take 1.2 million acres of marginal land out of annual crop production.
- And through the Green Plan, PFRA has supported a wide array of practical proposals to advance sustainable agriculture, including crop rotations, direct seeding and forage management.

Through all of these activities, PFRA works with its rural clients to lay the groundwork for a viable agricultural industry, healthy environment and sound rural economy.

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