AGRICULTURE AND AGRI-FOOD CANADA

HELPING TO CREATE NEW OPPORTUNITIES IN HUMAN HEALTH AND NUTRITION



Agriculture and Agri-Food Canada (AAFC) has committed resources in the area of human health and nutrition in an effort to strengthen the capacity of the Canadian food sector to produce high quality food products while meeting current consumer needs and preparing to meet future demands. AAFC is currently engaged in a significant number of projects that are aimed at meeting the key departmental objectives for human health and nutrition. By supporting activities that strengthen the sector's capacity to respond to existing human health and nutrition issues, AAFC is helping to increase the sector's profitability. Listed below are program details and highlights from a number of departmental activities and ongoing projects.

POLICY AND REGULATORY ENVIRONMENT

A coordinated and integrated approach to Canadian agriculture and agri-food

AAFC works with other federal, provincial and territorial government departments and ministries and with industry stakeholders to ensure that food produced in Canada continues to be among the safest and highest quality in the world. This goal entails the development of sound agricultural policies that address economic, environmental and social issues, including human health and nutrition.

Robin Chiponski-Keller, Food Safety and Quality Policy Directorate *chiponskikeller@agr.gc.ca*Tel.: (613) 759-7547

Economic policy and research

AAFC and the Agricultural Policy Research Network work together to analyze and estimate the costs/benefits, economic impacts and policy implications for the agriculture and agri-food sector. Areas of activity include certification standards, and policies and regulations aimed at improving the health and nutrition of Canadians. Planned areas of research include food labelling (nutrients, health properties, products derived from genetic engineering), policies to address obesity, health policies, and the decision making process of consumers when they purchase food.

Margaret Zafiriou, Strategic Policy Branch, Economic and Industry Analysis *zafirim@agr.gc.ca*Tel.: 613 759-1932

Policy and technical issues

This group works primarily with other government departments in support of an accessible and appropriate regulatory environment. Areas of activity include health claims, nutrition labelling, trans fat reduction, discretionary vitamin and mineral addition to foods, revision of Canada's Food Guide and revision of the Food and Drugs Act. These policies and regulations are under the purview of Health Canada; however, they are of interest to AAFC because of the role they play with respect to food-industry innovation and the provision of products to satisfy the health and nutrition related demands for buyers and consumers in the marketplace. Work on these files is conducted through studies and working with national food industry associations, the AAFC value chain roundtables, academic organizations, non governmental organizations and multistakeholder task forces.

Michael Silverman, Food Value Chain Bureau, Cross-Sectoral Food Industry Affairs Division silvermanm@agr.gc.ca







Value chain roundtables

The industry-led roundtables bring together players from across value chains - producers, processors, retailers and others - to create and implement a shared vision. Provisions to meet the growing consumer demand for healthy and nutritious food is an important element of the strategies being developed by many of the roundtables. For example, the oilseeds roundtable has made functional foods a priority and is supporting a soy industry path-finding project to establish precedents and best practices for health-claim applications. Functional food and the regulation of health claims are also priority areas for the cereal grains and special crops roundtables. While the special crops roundtable is exploring opportunities surrounding nutraceuticals and natural health products, the cereal grains roundtable is concentrating on functional food opportunities. Other roundtables have been established for the beef, pork, seafood and horticulture sectors.

Stephen Desroches, International Markets Bureau, Value Chain Roundtables Secretariat desrochess@agr.gc.ca

Tel.: 613 694-2420

Functional foods and nutraceuticals

The New Foods and Technologies Section works with industry and governments in the areas of market/sector development, competitive analysis, industry benchmarking and public awareness and partnership. The purpose of these efforts is to facilitate the growth and development of the Canadian functional food and nutraceutical (FFN) sector. The work involves cooperation among federal and provincial departments and agencies to ensure the continued growth of the sector (e.g. Wellness West), support to the industry on relevant issues, and carrying out studies to further the understanding of the FFN sector (AAFC / Statistics Canada FFN industry survey, international market opportunities study, etc.). Further information may be found at www.agr.gc.ca/food/ under "Functional Foods and Nutraceuticals".

Brian Rattray, Food Value Chain Bureau, Cross-Sectoral Food Industry Affairs Division rattraybl@agr.gc.ca

Tel.: 613 759-6048

Attracting investments

By assisting Canadian firms and institutions to form advantageous, strategic alliances with firms in other countries, AAFC fosters the development of investment opportunities within the food industry. Efforts include connecting Canadian firms with foreign firms to develop new food products, disseminating information about the technical support and intellectual property available from Canadian firms and institutions to facilitate the establishment of new firms in Canada, and facilitating linkages, at the scientific level, that promote the creation of commercial alliances between Canada and other countries. Recent success stories include that of a Canadian manufacturer of probiotic products who secured a number of Italian clients after participating in an Investment Secretariat delegation to a functional food show in Italy, and that of a Canadian company that concluded a distribution agreement with an Italian company after a business meeting was organized for them by the Investment Secretariat.

Ted Pidgeon, Markets and Trade Team, Investment Secretariat pidgeont@agr.gc.ca

Tel.: 613 759-7549

Financial support programs*

By bringing together key organizations, the Agricultural Policy Framework Broker and Agri-Innovation Programs facilitate the transfer of science and technology, creating opportunities for agricultural processors, producers, and rural communities to commercialize value-added products and services. The programs also create new life science and industrial products for consumers. Support is provided to 10 to 15 large and long-term functional and healthy food projects, such as Flax 2015, developed by provincial and regional industry representatives and science specialists. Broker programming supports a number of "broker" organizations working in industry, government and universities to foster innovation. Agri-innovation programming supports projects identified and promoted by the brokers to bring together key players in the value chains and facilitate research, production and marketing.

Lorne Heslop, Research Branch, APF Science & Innovation Program *heslopl@agr.gc.ca*

Tel.: 613 759-7798

Commercial Issues and Consumer Analysis Group

This group focuses on generating information and understanding about the food consumption and purchasing behaviour of Canadian consumers. This group studies consumers and records their awareness and attitudes toward food and food-related issues such as food safety and quality, health, environmental sustainability, innovation and the availability of information. The results of these efforts culminate in products such as the "Consumer Trends to 2020 Report" and research on food safety and quality public opinion, functional food and nutraceutical public opinion, and analysis of Canadian consumer food consumption and expenditures.

Linda Robbins, Food Value Chain Bureau, Cross-Sectoral Food Industry Affairs Division robbinsl@agr.gc.ca

Tel.: 613 759-7550



SCIENTIFIC RESEARCH AND DEVELOPMENT

Scientific teams at AAFC carry out research to maximize and preserve the nutritional quality of foods from field to fork. This research allows consumers to make healthy food choices and helps the food industry to improve its products. The research undertaken also provides an understanding of how foods affect body functions (metabolism, immune system, etc.) and helps in determining which food quality factors affect the selection of new plant varieties. animal breeds and production techniques to optimize the nutritional value of foods. Key areas of research are the following: Functional foods and bioactive ingredients identifies food ingredients with potential health promoting properties such as antioxidants, fibre, soy, ß glucan, CLA, and fatty acids.

Models to study the digestion, absorption, and metabolism of food – studies how food is digested, absorbed and metabolized. Various models are used to test the bioavailability, efficacy and safety of food ingredients with health promoting potential. The role of foods and food ingredients in health and disease – establishes links among food, health and well being. Further areas of research include the glycemic index, anti-cancer and anti-aging agents, fat and cholesterol metabolism and immune function.

Edward Farnworth, Research Branch, Research Scientist farnworthed@arg.gc.ca

Tel.: 450 773-1105, ext. 251

AAFC researchers are studying the health benefits of crops through further research on their bioactive components and through clinical trials conducted in collaboration with the medical community. These AAFC projects on functional foods and nutraceuticals will help create the link between agri-food science and human clinical research. Integrated teams bringing together researchers from AAFC, other federal departments, universities and hospital research centres will focus on crops grown in Canada. The ultimate goal is the development of commercially viable nutraceutical and functional food products and of technologies that will benefit the agri-food sector in Canada and the health of Canadians.

Benoit Girard, Bioproducts and Bioprocesses, National Science Program girardbh@agr.gc.ca

Tel.: 250 494-6390



Note:

* Some projects related to health and nutrition may qualify under broader programs such as: Advancing Canadian Agriculture and Agri-Food (ACAAF).

http://www.agr.gc.ca/cb/index_e.php?s1=b&s2=2004&page=n41126a

Matching Investment Initiative (MII)

 $http://res2.agr.gc.ca/indust/mii/index_e.htm$

Canadian Agriculture and Food International Program (CAFI)

http://www.agr.gc.ca/int/cafi-picaa/index_e.php?page=intro



July 2006 AAFC No: 10158E