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Canadian Functional Foods and Natural Health Products

Rooted in quality and nurtured through innovation

Consumer interest in the health-enhancing features of compounds found in foods is driving a growing and robust market for functional foods and natural health products.

The Canadian Advantage

Canada produces a wide range of functional foods and natural health products that rank among the world's best in terms of quality, nutrition, taste and scientific research.

Canada is committed to meeting the needs of its global customers through its competitive strengths:

- ✓ **Natural Resources** • Canada's abundant natural resources, including fresh water and diverse plant, animal and marine life, are building blocks for an array of superior-quality agri-food products.
- ✓ **Collaborative Teamwork** • Collaboration among governments, universities, health institutions and industry has helped this vibrant sector prosper through innovations leading to the production of diverse agri-food products with proven health benefits.
- ✓ **World Class Standards** • Canada's regulatory and food inspection systems are internationally recognized, resulting in sought-after products that are safe and nutritious.
- ✓ **Innovative Research** • Canada has a strong network of research facilities across the country where scientific innovators are focused on developing next-generation products and technologies.

Natural Resources

Canada has distinguished itself as a supplier of quality raw materials and novel ingredients to address the needs of the health and wellness sector. Companies identify and use components from Canadian crops and by-products to develop ingredients, foods and supplements that promote health beyond basic nutrients. By combining quality products with after-market expertise, many Canadian companies have built international reputations on the development, processing and packaging of bioactive (biologically active) ingredients for functional foods and natural health products.





Examples of Bioactive Ingredients Produced in Canada

- Omega-3 and other essential fatty acids from marine and plant sources such as canola, hemp, flaxseed, sea buckthorn and algae
- Fibre from soy, chia, fenugreek, oats, barley and pulses
- Antioxidants from blueberries, cranberries and Saskatoon berries
- Protein from milk, egg, soy, and pulses

The functional foods and natural health products sector comprises more than 700 companies ranging from small start-ups to multinational enterprises. Information on the sector, including revenues, products, channels of distribution, labour, trade, innovation research, and market opportunities can be found in the [Functional Foods and Natural Health Products Survey \(2011\)](#). This survey was commissioned by Agriculture and Agri-Food Canada (AAFC) and conducted by Statistics Canada. For more detailed information on specific products offered by individual suppliers, please consult the AAFC [Functional Foods and Natural Health Products Database of Suppliers](#).

Canadian Success Stories

Discover some of Canada’s entrepreneurs producing quality agri-foods and natural health products.

Functional Foods

- Saputo developed a high protein Milk2Go sports drink.
- LeHave Natural Farms’ haskap berry juice was a 2013 World Juice Award winner.
- Biscuits Leclerc’s Preventia biscuits are enhanced with red wine and inulin from chicory.
- Martin’s Family Fruit Farm makes crispy apple chip snacks (dehydrated and preservative-free).
- HapiFoods’ Holy Crap developed non-GMO, gluten free, organic multi-grain breakfast cereals.
- Atoka cranberries are available as dried, powdered, concentrated or frozen.
- Acadian Seaplants incorporates unique sea plants into foods, nutraceuticals, and cosmetics.

Natural Health Products

- Pacific Agri-Food Research Centre pioneered the extraction of anthocyanins from berries and red wine.
- Nutra Canada specializes in fruit and vegetable extracts.
- Greenfield Naturals concentrates protein and fibre from by-products of corn-ethanol.
- Nanton Nutraceuticals produces Rhoziva, a supplement from Rhodiola rosea.
- Island Abbey Foods manufactures Honibe honey lozenges with menthol and eucalyptus.
- Natural Factors Nutritional Products created PGX for appetite control.
- Valeant Pharmaceuticals (formerly C.V. Technologies) developed Cold-FX from North American ginseng.



Collaborative Teamwork

There is strength in the collaboration among governments, universities, health institutions and industry that helps this vibrant sector prosper by encouraging innovation and manufacturing of diverse products with proven health benefits.

A made-in-Canada achievement highlighting the collaboration between AAFC scientists, MySmartFoods, and oat growers was the successful breeding and marketing of (hulless) Naked Oats. Naked Oats boasts twice the protein, ten times the fibre and five times the iron of white rice. In addition to being gluten-free, it contains lysine (often limited in cereal grains), beta-glucan (which can help reduce cholesterol), antioxidants and a low glycemic index. The Campbell Company of Canada saw the potential in this rice substitute with its impressive nutritional profile, and used it to create Nourish—a complete meal in a can that is helping to address the issue of hunger in Canada and abroad.

World Class Standards

Canada regulates food products based on scientific evidence and the level of risk to consumer health and safety. These rigorous standards maintain Canada's reputation for safe and high quality foods and ingredients that buyers expect, while advancing the creation and marketing of new products. Responsibility for the regulation of functional foods and natural health products is divided between Health Canada's Food Directorate and Natural Health Products Directorate. The Canadian Food Inspection Agency monitors and enforces the safety of functional foods.

Canadian researchers have developed effective methods for standardizing and ensuring the potency and bioactivity of ingredients in functional foods and natural health products. As well, the University of Guelph is using DNA barcoding to verify the biological origins of nutrients,¹ and TellSpec invented a consumer-friendly phone application to analyse food ingredients.²



Innovative Research

Recognizing the link between a supportive regulatory environment and innovation, AAFC prepared a report entitled [Emerging Food Products, Technologies and Processes: Insights for Regulators](#) (2012).



The report foretells trends in the following areas: enhanced nutrition, new processing and production technologies, branded ingredients, new crop or animal varieties, enhanced food safety, new food additives, prolonged shelf life, and removal of toxins and allergens. Research and development on some of these projects is taking place in Canadian universities, government research labs, institutes, food technology centres and contract manufacturing firms.

Canada's reputation for scientific excellence and research strength in agri-food ingredients and health is due to its networks—connecting academia, industry, government, non-profit organizations, agricultural institutes and medical centres. Together these partners discover and validate the health benefits of traditional and new-generation ingredients derived from plant breeding, extraction technologies, and animal and marine life.

Further details on their specific expertise are available by visiting the sites listed below.

Agriculture and Agri-Food Canada Research Centres

www.agr.gc.ca/eng/science-and-innovation/research-centres/?id=1181591790641

With their links to a network of provincial governments, universities and the business community, the Research Centres are well-positioned to provide referrals to Canadian specialists.

¹ www.uoguelph.ca/news/2013/07/world_centre_fo.html

² <http://tellspec.com>

FoodTech Canada

FoodTech Canada is a network of leading food commercialization centres that assist with new product formulation, research facilities and state-of-the-art equipment.

- Food Processing Development Centre [www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/fpdc5012](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/fpdc5012)
- POS Bio-Sciences www.pos.ca
- Saskatchewan Food Industry Development Centre www.foodcentre.sk.ca
- Food Development Centre (Manitoba) www.manitoba.ca/agriculture/fdc
- Canadian International Grains Institute www.cigi.ca
- Guelph Food Technology Centre www.gftc.ca
- Cintech agroalimentaire (in French only; English under development) www.cintech.ca/
- Merinov www.merinov.ca/en/
- Bio Food Tech www.biofoodtech.ca

University Research Parks

University Research Parks facilitate partnerships between agri-food/health researchers and business.

- Agri-Food Discovery Place (Alberta) www.afdp.ualberta.ca/
- Innovation Place (Saskatchewan) www.innovationplace.com/innovation-place.php
- Smartpark (Manitoba) <http://umanitoba.ca/smartpark>
- Research Park (Guelph, Ontario) www.uoguelph.ca/research
- Laval Technopole (Quebec) www.lavaltechnopole.com/the-poles.html
- Saint-Hyacinthe Technopole (Quebec) (in French only) www.bioalimentaire.ca/client/page1.asp?page=938&clef=26&Clef2=6
- AgriTech Park (Nova Scotia) <http://growingnovascotia.ca/invest-in-agriculture/innovation/agri-tech-business-park/>

Agri-Food Centres with Specific Expertise

In addition to connecting to on-going research conducted by universities across Canada, these specialized centres focus on cutting-edge product and technology development.

- The British Columbia Institute of Technology's Natural Health Product Research Group www.bcit.ca/appliedresearch/nrg/
- Alberta Agriculture and Rural Development's Food Processing Development Centre [www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/fpdc5012](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/fpdc5012)
- Canadian International Grain Institute <http://cigi.ca>
- Richardson Centre for Functional Foods www.rcffn.ca/
- Manitoba Agri-Health Research Network <http://mahrn.ca/>
- Canadian Centre of Agri-Food Research in Health and Medicine www.sbrc.ca/ccarm/
- Advanced Foods and Materials Canada www.afmcanada.ca
- Lawson Health Research Institute's Canadian Research and Development Centre for Probiotics www.crdc-probiotics.ca
- Laval University's Institute of Nutrition and Functional Foods www.inaf.ulaval.ca/no_cache/en/home

Other Useful Links

- Functional Foods and Natural Health Products - Canadian Industry www.agr.gc.ca/eng/?id=1170856376710
- Functional Foods and Natural Health Products Database of Suppliers <http://ffn-afn.agr.gc.ca>
- Directory of Canadian Food Ingredient Exporters www.ats.agr.gc.ca/exp/3741-eng.htm
- Canadian food regulations and legislation
 - Canadian Food Inspection Agency www.inspection.gc.ca
 - Health Canada www.hc-sc.gc.ca/fn-an/index-eng.php
- Canadian natural health products regulations and legislation
 - Health Canada www.hc-sc.gc.ca/dhp-mpps/prodnatur/index-eng.php
- Trade assistance and export guidelines
 - Agri-Food Trade Service www.ats-sea.agr.gc.ca
 - Exporter Assistance www.ats-sea.agr.gc.ca/exp/exp-eng.htm
 - The Canadian Trade Commissioner Service www.tradecommissioner.gc.ca
- Trade associations
 - Canadian Institute of Food Science and Technology www.cifst.ca
 - Canadian Health Food Association www.chfa.ca

Canada's functional foods and natural health products sector is a growing, active, research-oriented industry that uses high-quality ingredients to produce superior products for domestic and export markets.

The Government of Canada has prepared this report based on primary and secondary sources of information. Although every effort has been made to ensure that the information is accurate, Agriculture and Agri-Food Canada assumes no liability for any actions taken based on the information contained herein.

The companies named in this document were selected to illustrate the diversity of the functional food and natural health products sector in Canada, and do not constitute an exhaustive listing of companies involved in the sector. For additional information, consult Canadian food industry and natural health product directories or Internet sites. Reference in this document to companies or products, or the inclusion of images containing products, is not to be considered an endorsement by Agriculture and Agri-Food Canada.

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