Small Business and Special Surveys Division

The Functional Foods and Nutraceuticals Survey



**CONFIDENTIAL when completed** Collected under the authority of the Statistics Act, Revised Statutes of Canada, 1985, Chapter S19. Si vous préférez ce questionnaire en français, veuillez cocher et retourner ce questionnaire

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**Canad**<sup>#</sup>

### The purpose of the survey

Statistics Canada is conducting this survey on behalf of Agriculture and Agri-Food Canada. The objective of the survey is to produce new statistical information on the functional food and nutraceutical sector and a profile of firms engaged in functional food and/or nutraceutical related activities in Canada. Information from this survey may be used by businesses for economic or market analysis, by trade associations to study industry performance, by government departments and agencies to assist policy formation, and by the academic community for research purposes.

#### Your participation is important

Participation in this survey is voluntary. However, your co-operation is essential to ensure the accuracy of the information collected.

#### The data you report are confidential

Statistics Canada is prohibited by law from publishing or releasing statistics that could reveal information obtained from this survey relating to an identifiable individual business or person. The data reported on the questionnaire will be treated in strict confidence, used for statistical purposes and released in aggregated form only. The confidentiality provisions of the *Statistics Act* are not affected by either the Access to Information Act or any other legislation.

#### Who should complete this questionnaire?

A senior manager such as a product or research and development manager or someone familiar with the functional food or nutraceutical activities of your company should complete this questionnaire. Please complete the questionnaire on behalf of all functional food and nutraceutical activities at your firm. Please return the completed survey in the self addressed prepaid envelope provided, to later than June 6<sup>th</sup>, 2003.

If you have any questions regarding this survey of the questionnaire, please contact the Survey Manager, Shelley Harman, toll-free at 1-877-679-2746 or by a mail at shelley.harman@statcan.ca

Please complete the following information

Name of Respondent:	
Title of Respondent:	
Telephone Number:	

Please correct pre-printed information, if necessary using the corresponding boxes:

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# **Definitions of Functional Foods and Nutraceuticals**

**Functional foods** are similar in appearance to, or may be, a conventional food, consumed as part of a usual diet, and are demonstrated to have physiological benefits and/or reduce the risk of chronic disease beyond basic nutritional functions.

**Nutraceuticals** are products isolated or purified from foods that are generally sold in medicinal forms not usually associated with food such as powders, tablets or capsules. A nutraceutical is demonstrated to have a physiological benefit or provide protection against chronic disease.

## Participation in Functional Food and/or Nutraceutical Activities

1. For which of the following functional food and/or nutraceutical type(s) does your firm engage in activity?

### Please mark all that apply.

Foods that have added active ingredients other than vitamins or minerals and have been scientifically demonstrated to provide health benefits beyond their basic nutritional functions (ex. muffins with beta-glucan, drinks with herb blends, foods with added soluble fibre, etc.)

Foods specially enhanced to contain more of a functional component, through plant <sup>2</sup>O breeding techniques, genetic modification, processing, or special livestock feeding techniques, that have been scientifically demonstrated to provide health benefits beyond their basic nutritional functions (ex tomato with enhanced lycopene level, canola high in carotenoids, strawberries containing increased levels of ellagic acid, omega-3 eggs, etc.)

Nutraceuticals that are extracted or purified from plants (ex. beta-glucan from oats, <sup>3</sup>O antioxidants from blueberries, isoflavanoids from soy, sterols from wood pulp, essential fatty acids from primrose oil, soluble fibre from fenugreek, etc).

Nutraceuticals that are ground, dried, powdered and pressed from plant materials (ex. 4 Echinacea, enugreek, valerian, black cohosh, and ginseng)

Nutracesticals that are produced, extracted or purified from animals and microorganisms (ex. Elk velvet, essential fatty acids (EFAs), enzymes, carotenoids, etc)

Nutraceuticals that are produced, extracted or purified from marine sources (ex. O glucosamine, chitosan, products from algae, seaweed, kelp, fish oils, etc.)

Other, please specify\_\_\_\_\_

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None of the above  $\rightarrow$  *If you are <u>not</u> involved in any functional food or nutraceutical activities please return the questionnaire in the envelope provided. Thank you.* 

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If this company is not engaged in activities which require the use of functional food or nutraceutical <u>ingredients</u>  $\rightarrow$  go to question 3.

2. What is the source of origin of the <u>functional</u> food and/or <u>nutraceutical</u> ingredient(s) in your product(s)? (If it is known that products are exported from and re-imported to Canada, please indicate product as Canadian origin, otherwise please indicate last known origin.)

Please mark all that apply.

	Canadian origin	Foreign origin
a) Dairy products	<sup>1</sup> O	<sup>2</sup> <b>O</b>
b) Oil seeds	<sup>1</sup> O	<sup>2</sup> <b>O</b>
c) Meat and poultry, or other animal products	<sup>1</sup> O	<sup>2</sup> O
d) Seafood or other marine species	<sup>1</sup> O	$^{2}O$
e) Grains and cereals	<sup>1</sup> O	$^{2}O$
f) Pulses/Legumes	<sup>1</sup> O	$^{2}O$
g) Fruits	<sup>1</sup> O	20
h) Vegetables	<sup>1</sup> O	2
i) Herbs and/or spices	<sup>1</sup> O	
j) Other, please specify	<sup>1</sup> O	$\mathbb{V}^2 O$
	$\land$ ((	$)) \sim$

# Firm Characteristics and Financial Profile

3. How does your firm participate in the functional food and/or nutraceutical industry?

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Please mark all that apply.

Á	Functional Foods	Nutraceuticals
a) Scientific research & development (R	(4) <sup>1</sup> O	<sup>2</sup> O
b) Product development/scale-up of new	products <sup>1</sup> O	$^{2}O$
c) Manufacturer of ingredients	<sup>1</sup> O	$^{2}O$
d) Manufacturer of consumer ready products	<sup>1</sup> O	<sup>2</sup> <b>O</b>
e) Wholesaler of products	1 <b>O</b>	$^{2}O$
f) Retailer of products	1 <b>O</b>	$^{2}O$
g) Provide services (equipment, clinical to software, etc.) for the industry	esting, <sup>1</sup> O	<sup>2</sup> O
h) Other, please specify	1 <b>O</b>	<sup>2</sup> <b>O</b>
4. What is the ownership structure of t	his firm?	
Please mark all that apply.		
Multi-national	<sup>1</sup> O	
Private corporation	<sup>2</sup> O	
Public corporation	<sup>3</sup> O	
Sole proprietorship	<sup>4</sup> O	
Unincorporated partnership	5 <b>O</b>	
Other, please specify	6 <b>O</b>	

## 5. What is the majority firm ownership of this business?

Canadian	$^{1}O$
Foreign owned	$^{2}O$
Crown corporation	<sup>3</sup> O

# 6. What types of distribution channels do you use for your functional food and/or nutraceutical products?

Please mark all that apply.		
Direct selling to final consumer	<sup>1</sup> O	$\land$
Internet sales	<sup>2</sup> <b>O</b>	$\land$
Retailer	<sup>3</sup> O	
Wholesaler	<sup>4</sup> O	
Mail order	5 <b>O</b>	
Multi-level marketing/Network marketing	6 <b>O</b>	$(\bigcirc)$
Broker/3 <sup>rd</sup> party distributor	<sup>7</sup> O	
Other, please specify	80 <u>4</u>	$\diamond$
	$\wedge$	
7. Does your firm export functional food or nutra	centical products <sup>2</sup>	
	Contras products.	
Yes <sup>1</sup> O		
No ${}^{2}O \rightarrow \text{go to Question 12}$	$\langle 0 \rangle$	
	$\checkmark$	
	>	
8. Which of the following produc <del>ts</del> does your firm	export?	
Please mark all that apply.		
Raw material/ingredients to be used in functional for	od/nutraceuticals	<sup>1</sup> O
Semi-finished functional food/nutraceuticals to be fu	rther processed before sale	<sup>2</sup> <b>O</b>
Finished functional food nutraceuticals to be sold at without further processing	wholesale or retail level	<sup>3</sup> O
Technology pertaining to the production of functiona	l food/nutraceuticals	<sup>4</sup> O
Other, please specify		5 <b>O</b>

# 9. What country(s) did your firm export functional food and/or nutraceutical products to in 2002?

 1	7
2	8
3	9
4	
5	11
6	
-	

10. What <u>new</u> countries are you <u>actively</u> investigating to export your functional food/nutraceutical products to within the next 2 years?

1		5
2	2	6
3	3	7
4	1	8

11. Please indicate your total <u>export</u> revenue and the proportion of this revenue that is attributable to functional food/nutraceutical activities for the fiscal year ending in 2002. If information is not available, please provide a carefully considered estimate. Report in thousands of dollars (\$,000). If '0' (zero) please indicate '0', do not leave blanks.

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Total export revenues (all sources)

Export revenues from Functional Foods/Nutraceuticals

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# **Raising Capital**

12. Did your firm attempt to raise capital specifically for functional food and/or nutraceutical related purposes in 2002?

Yes

No

 $^{2}O \rightarrow \text{go to Question 20}$ 

13. Why did you raise or attempt to raise capital for functional food and/or nutraceuticals?

Please	mark	all	that	apply.	

Scientific research & development (R&D) purposes	$^{1}O$
Develop or expand production and manufacturing capability	$^{2}O$
Commercialize correct R&D projects	<sup>3</sup> O
Clinical/regulatory expenses	4 <b>O</b>
To expand mexisting or enter into new markets	5 <b>O</b>
Repay current investors	6 <b>O</b>
Other, please specify	<sup>7</sup> O
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### 14. Were you successful in raising any capital?

Yes  ${}^{1}O$ No  ${}^{2}O \rightarrow$ go to Question 18

15. How much capital was raised?

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## 16. Did you reach your target?

Yes	<sup>1</sup> O
No	$^{2}O$

### 17. Which of the following sources contributed to your capital raised?

## Please mark all that apply.

Canadian based venture capital	1	^
American based venture capital	<sup>2</sup> O	
Other foreign based venture capital	3 <b>O</b>	
Conventional sources (i.e. banks, IPO)	4 <b>O</b>	
Angel investors/family	5 <b>O</b>	
Government sources	6 🔿	$\bigcirc$
Partner from strategic alliances		
Other, please specify		$\checkmark$
	$\Diamond_{\sim}(\bigcirc)$	

# 18. Was your firm limited or refused any request(s) for funds from any source when raising capital?

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Yes No  $^{1}O$  $^{2}O \rightarrow go to Question 20$ 

# 19. What reason(s) did the lender(s) give in limiting or refusing your request for capital? Please mark all that apply.

	Functional food/hutraceutical products/processes not sufficiently developed	$^{1}O$
	Functional food/nutraceutical product line or portfolio limited in scope	$^{2}O$
	Insufficient specific management skills/expertise	<sup>3</sup> O
	Capital not available due to market conditions	4 <b>O</b>
$\langle \langle$	Further product development or proof of concept required	5 <b>O</b>
	Lender does not fund development projects	6 <b>O</b>
	Lack of intellectual property	<sup>7</sup> O
	Lack of long term strategic planning	<sup>8</sup> O
	Lack of marketing analysis	٩O
	Failed to meet lending criteria	$^{10}O$
	Lack of evidence to support projections	11 <b>O</b>
	Other, please specify	<sup>12</sup> O

# **Functional Food and Nutraceutical Products**

20. In the table below, please indicate the number of functional food and /or nutraceutical product lines your firm currently has in development and/or on the market for sale by the disease state or health aspect your product line targets <u>or would target if it were possible</u> to make such claims in Canada. *Note: Some product lines may target multiple disease states/health aspects.* 

Disease State or Health Aspect Targeted by Functional Food and/or Nutraceutical	Number of product <sup>1</sup> lines in development , and not on the market for sale	Number of product <sup>2</sup> lines on the market for sale	
a) Vascular/Heart Health			
b) Diabetes			
c) Cancer			$\wedge$
d) Energy			
e) Mental Ability			$\backslash$
f) Gut Health			> `
g) Immune system			
h) General Well Being			
i) Bone Health		$\langle \bigcirc$	
j) Eye Health	~ (		
k) Weight Control			
1) Sexual Performance			
m) Other			
		·	

21. In total, how many functional foot/autraceutical related product lines does your firm currently have on the market?

22. In total, how many of your functional food or nutraceutical product lines are sold <u>only in</u> <u>Canada</u> and not exported?

23. In total, how many of your functional food or nutraceutical product lines are <u>only for export</u> and pot sold in Canada?

24. In 2002, which functional food or nutraceutical product area generated the most revenue for your firm?

Please mark one only.

Vascular/Heart Healt	h 1O	General Well Being	<sup>8</sup> O
Diabetes	$^{2}O$	Bone Health	°O
Cancer	<sup>3</sup> O	Eye Health	<sup>10</sup> O
Energy	4 <b>O</b>	Weight Control	<sup>11</sup> O
Mental Ability	۶O	Sexual Performance	<sup>12</sup> O
Gut Health	6 <b>O</b>	Other, please specify	<sup>13</sup> O
Immune System	7 <b>O</b>		

## **Business Practices**

Partnerships involve the active participation in projects between your company and other companies or organizations. These projects involve the development, production or distribution of functional food/nutraceutical products or technology surrounding them. Pure contracting-out work where money is paid for a service is not regarded as a partnership.

# 25. Is your firm involved in functional food and/or nutraceutical related partnership arrangements with other companies or organizations?

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Yes	1 <b>O</b>
No	$^{2}O \rightarrow$ go to Question 28

### 26. What is/are the purpose(s) of your partnership arrangement(s)?

### Please mark all that apply.

To conduct scientific research and development (R&D)

Regulatory affairs

Access others' patents

Production/manufacturing

Access markets/distribution channels

Access capital

Access to intellectual property of partner

Other, please specify\_

# 27. Which of the following is/are your partnership(s) with?

Please mark all that apply <

Canadian based company(s) organization(s)	$^{1}O$
American based company(s)/organization(s)	<sup>2</sup> O
Other foreign based company(s)/organization(s)	<sup>3</sup> O

28. Is your firm currently seeking to form new partnership arrangements?

Yæs No

29. Did your firm contract out functional food and/or nutraceutical related activities in 2002?

Yes	
No	$^{2}O \rightarrow$ go to Question 31

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 $^{2}O$ 

### 30. For what purpose(s) did you contract out?

### Please mark all that apply.

Scientific research and development	
Technical/Engineering	$^{2}O$
Regulatory/Intellectual Property (IP)	<sup>3</sup> O
Manufacturing/Production	4 <b>O</b>
Sales/Marketing	5 <b>O</b>
Clinical	6 <b>O</b>
Market research	<sup>7</sup> O
Other, please specify	8 <b>O</b> 8

# **Human Resources**

31. How many employees (including permanent and seasonal/casual/contract) did your firm employ in 2002? (Please report highest employment level for 2002).

32. How many of your employees (including permanent and seasonal/casual/contract), devoted all or any portion of their time to functional food or nutraceutical related activities, or tasks associated (such as administrative or secretarial) with the running of the functional food or nutraceutical portion of this business in 2002?

33. Does your firm currently have unfilled functional food and/or nutraceutical-related positions?

Yes No  $^{1}O$   $\rightarrow$  go to Question 36

34. For those unfilled positions what type of competencies are needed?

	Please mark all that apply	
	Scientific Research & Development	$^{1}O$
	Technical/Engineering	$^{2}O$
	Regulatory/Intellectual Property	<sup>3</sup> O
$\backslash$	Clinical Affairs	4 <b>O</b>
	Production	5 <b>O</b>
	Sales/Marketing/Advertising	6 <b>O</b>
	Management/Finance	7 <b>O</b>
	Quality Control	8 <b>O</b>
	Business Development	٩O
	Other, please specify	$^{10}O$

35. Which of the fol	llowing obstacles have had a	n impact on your efforts (	to fill your functional food
or nutraceutical po	sitions?		
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Please mark all that apply.	
Compensation requirements by candidates too high	$^{1}O$
Candidates unwilling to relocate	<sup>2</sup> <b>O</b>
Candidates lack of expertise	<sup>3</sup> O
Capital/resources insufficient to attract candidates	<sup>4</sup> O
Competition for qualified candidates	5 <b>O</b>
Other, please specify	6 <b>O</b>

36. How many new functional food and/or nutraceutical employees did you hire in 2002?

37. Did you hire any functional food and/or nutraceutical staff from outside Canada in 2002?

Yes	<sup>1</sup> <b>O</b>
No	$^{2}O \rightarrow$ go to Question 39

38. How many functional food and/or nutracentical staff did you hire from outside Canada in 2002?

# Impact of Regulations

39. How would the ability to use disease risk reduction product specific claims impact the following areas of your business?

Please circle your response.

	Very Negative	Somewhat Negative	No Impact	Somewhat Positive	Very Positive	Don't Know	
a) Domestic Sales	1	2	3	4	5	6	
b) Export Sales	1	2	3	4	5	6	
c) Willingness to conduct research to support health claims	1	2	3	4	5	6	
d) Ability to compete with global competitors	1	2	3	4	5	6	

40. How would the ability to use generic health claims on functional foods and/or nutraceuticals impact the following areas of your business?

Please circle your response.

	Very Negative	Somewhat Negative	No Impact	Somewhat Positive	Very Positive	Don't Know
a) Domestic Sales	1	2	3	4	5	6
b) Export Sales	1	2	3	4	5	6
c) Willingness to conduct research to support health claims	1	2	3	4	5 \\\	6
d) Ability to compete with global competitors	1	2	3	4		
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41. How would the ability to use structure and function specific claims on functional foods and/or nutraceuticals impact the following areas of your business?

Please circle your response.

	Very Negative	Somewhat Negative	No Impact	Somewhat Positive	Very Positive	Don't Know
a) Domestic Sales	1		3	4	5	6
b) Export Sales		2	3	4	5	6
c) Willingness to conduct research to support health claims	$\langle \rangle$	2	3	4	5	6
d) Ability to compete with global competitors	1	2	3	4	5	6

42. How would changing compositional and labeling regulations to match U.S. standards impact the following areas of your business?

Please eircle your response.

	Very Negative	Somewhat Negative	No Impact	Somewhat Positive	Very Positive	Don't Know
a) Domestic Sales	1	2	3	4	5	6
b) Export Sales	1	2	3	4	5	6
c) Willingness to conduct research to support health claims	1	2	3	4	5	6
d) Ability to compete with global competitors	1	2	3	4	5	6

# **Intellectual Property**

43. Did your firm grant any functional food and/or nutraceutical licensing agreement(s) in 2002?

Yes	1 <b>O</b>
No	$^{2}O \rightarrow$ go to Question 45

44. How much revenue did your functional food and/or nutraceutical related intellectual property (IP) licensing agreement(s) generate in 2002?

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45. Did your firm develop trade secrets in 2002?

Yes	
No	$^{2}O$

46.	Did your	firm	register	any	trademarks	in 2002?
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Yes	
No	$^{2}O$

47. Does your firm have functional food and/or natraceutical related patents or pending patents?

Yes No  $^{1}O$   $^{2}O \Rightarrow go to Question 49$ 

48. Please indicate the distribution of functional food and/ or nutraceutical related patents and pending patents your firm has by Patent Office.

	Canadian Intellectual Property Office (CIPO)	2 US Patent & Trademark Office (USPTO)	3 European Patent Office	4 Other
a) Number of Existing Patents				
b) Number of Pending Patents				

49. Has your firm obtained functional food/nutraceutical related intellectual property rights from another firm?

 $\begin{array}{ll} Yes & {}^1 \\ No & {}^2 \\ \end{array}$ 

# **Revenue and Scientific Research and Development Spending**

50. Please indicate your revenue and Scientific R&D expenditures on the table below. If information is not available, please provide a carefully considered estimate. Report for fiscal years ending 2002 and forecast for 2003. Please report in thousands of dollars (\$,000). If '0' (zero) please indicate '0', do not leave blanks.

Sales/Revenues	<b>2002</b> <sup>1</sup>	Forecast <sup>2</sup> for 2003
a) Total firm sales/revenues (all sources)	\$	\$
b) Sales/revenues from functional foods/nutraceuticals	\$	\$

Scientific R & D Spending	2002	Forecast for 2003
c) Total R&D spending	\$	\$
d ) Total spending on FF/N R&D	\$	\$ <b>(</b> ) *

# Comments

Please provide any comments you may have below.	
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Thank you for your assistance.	
Please return the questionnaire in the accompanying self addressed prepaid envelope b June 6th, 2003.	y