

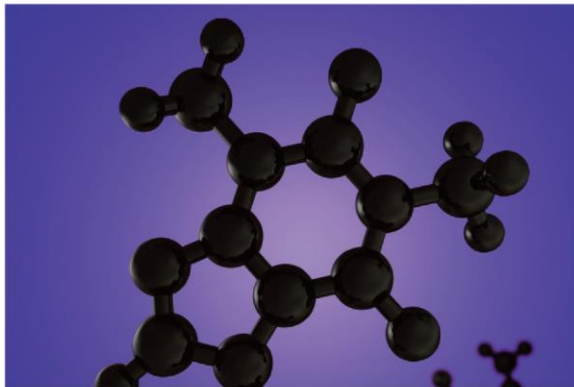


Targeted Surveys

REPORT

2013-2014

Allergens



Peanut in Snack Foods with a Peanut-Free Claim

RDIMS 6123378

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Executive Summary

Targeted surveys are used by the Canadian Food Inspection Agency (CFIA) to focus its surveillance activities on areas of highest risk. The information gained from these surveys provides both support for the prioritization of the Agency's activities to areas of greater concern and scientific evidence to address areas of lesser concern. Originally started under the Food Safety Action Plan (FSAP), targeted surveys have been incorporated into the CFIA's regular surveillance activities as a valuable tool for generating essential information on certain hazards in foods, identifying/characterizing new and emerging hazards, informing trend analysis, prompting/refining human health risk assessments, assessing compliance with Canadian regulations, highlighting potential contamination issues, and promoting compliance.

A wide variety of prepackaged snack foods are available on the Canadian market and include products like baked goods, cereal/granola bars, chocolate, cookies, crackers, and puddings. In some cases, an allergen may be present in prepackaged food products as a result of cross-contamination prior to or during manufacturing, which may indicate a breakdown in good manufacturing practices or allergen controls. The presence of an undeclared allergen in a food may represent a serious or life-threatening health risk for allergic or sensitive individuals. Some prepackaged snack foods have allergen-free claims on the labels. Allergen-free claims imply that measures have been taken by the company to ensure that the claim is accurate, and provides a measure of reassurance to an allergic individual or their caregiver.

The main objectives of this targeted survey were to obtain baseline information regarding the presence and levels of undeclared peanut in prepackaged snack foods which have a peanut-free claim on the label, and to identify potential food safety concerns related to undeclared peanut for the peanut-allergic population.

A total of 989 samples were collected and analysed for the presence of peanut. Samples targeted in this survey included prepackaged snack foods (chocolate, cookies, and snack bars) that had a peanut-free claim on the label.

None of the 989 samples were positive for peanut. Follow-up actions were not deemed necessary given that none of the samples were positive for peanut.

The CFIA will continue its surveillance activities and inform the Canadian public and stakeholders of its findings.

1 Introduction

1.1 Targeted Surveys

The Canadian Food Inspection Agency (CFIA) monitors both domestic and imported foods for the presence of allergenic, microbiological, chemical, and physical hazards. One of the tools used to maintain this oversight are targeted surveys, which are a means to establish baseline information on specific hazards and to investigate emerging risks. Targeted surveys are part of the Agency's core activities along with other surveillance strategies, which include the National Chemical Residue Monitoring Program (NCRMP), the National Microbiological Monitoring Program (NMMP), and the Children's Food Project (CFP). The surveys are complementary to other CFIA surveillance activities in that they examine hazards and/or foods that are not routinely included in those monitoring programs.

Targeted surveys are used to gather information regarding the possible occurrence or prevalence of hazards in defined food commodities. These surveys generate essential information on certain hazards in foods, identify or characterize new and emerging hazards, inform trend analysis, prompt or refine human health risk assessments, assess compliance with Canadian regulations, highlight potential contamination issues, and/or influence the development of risk management strategies as appropriate.

Due to the vast number of hazard and food commodity combinations, it is not possible, nor should it be necessary, to use targeted surveys to identify and quantify all hazards in foods. To identify food-hazard combinations of greatest potential health risk, the CFIA uses a combination of scientific literature, the media, and/or a risk-based model developed by the Food Safety Science Committee, a group of federal, provincial and territorial subject matter experts in the area of food safety.

Some hazards are actually a food itself - an undeclared food allergen, which is not a hazard to the majority of the population, can be hazardous to allergic individuals. This targeted survey provided baseline information on the presence and levels of undeclared peanut in prepackaged snack foods (specifically chocolate, cookies, and snack bars) which had a peanut-free claim on the label. The sampled foods did not have peanut in the list of ingredients or in a precautionary statement.

1.2 Acts, Regulations, and Codes of Practice

The specific acts and regulations applicable to this survey are described below.

The *Food and Drugs Act* (FDA) is the legal authority that governs the sale of food in Canada. The *Canadian Food Inspection Agency Act* stipulates that the CFIA is responsible

for enforcing restrictions on the production, sale, composition and content of foods and food products as outlined in the *Food and Drugs Act* and *Food and Drug Regulations* (FDA and FDR).

If a prepackaged food product displays a list of ingredients but does not disclose potential allergens, it may pose a health risk to an allergic consumer. Failure to declare allergenic components may be contrary to subsection 5. (1) of the FDA¹, and such food products may therefore be subject to regulatory measures taken by the CFIA.

Health Canada has made amendments to the FDR to enhance the labelling of priority allergens, gluten sources, and sulphites on prepackaged foods sold in Canada. Some of these amendments require that food allergen and gluten sources be declared on the labels of prepackaged foods having a list of ingredients whenever the protein, modified protein, or protein fractions of the food allergen or gluten source are added to the food product. Due to the complexity of the labelling changes required, and given the extended shelf-life of some processed foods, Health Canada provided manufacturers with 18 months from the date of registration of the regulatory amendments to implement any necessary label changes. Thus, manufacturers were required to comply with Canada's amended food allergen labelling regulations when they came into force on August 4, 2012². The food products analyzed in this survey were sampled after these amended labelling regulations came into force and therefore were required to comply with these new regulations.

2 Survey Details

2.1 Undeclared Peanut in Prepackaged Snack Foods with a Peanut-Free Claim

While the presence of an undeclared allergen in a food is not a health concern for the majority of Canadians, it may represent a serious or life-threatening health risk for allergic or sensitive individuals. Current estimates indicate that food allergies affect as many as 6% of young children and 3% to 4% of adults in westernised countries³. In Canada, a specific list of food allergens have been identified by Health Canada as being responsible for causing the majority of severe allergic reactions, and these are sometimes referred to as the priority allergens: eggs, milk, mustard, peanuts, seafood (fish, crustaceans, shellfish), sesame, soy, sulphites, tree nuts (almonds, Brazil nuts, cashews, hazelnuts, macadamia nuts, pecans, pine nuts, pistachio nuts, and walnuts), and wheat. Peanut and tree nut allergies account for the majority of severe food-related allergic reactions⁴. Estimates of the prevalence of confirmed peanut (and tree nut) allergies in the

Canadian population range between approximately 0.6% and 1%, with the prevalenceⁱ of peanut allergy lower in adults (0.26%) than in young children (1.03%)^{5,6}.

Currently, there is no cure for a food allergy. The most important strategy for a person with a food allergy, or a person choosing food for such an individual, is avoidance of the allergen that can trigger an adverse reaction. Allergens must be appropriately labelled on finished food products to ensure consumers have complete, accurate information when choosing food.

2.2 Rationale

A wide variety of prepackaged snack foods are available to Canadians and include products like baked goods, cereal/granola bars, chocolate, cookies, crackers, and puddings. In some cases, an allergen may be present in prepackaged food products as a result of cross-contamination prior to or during manufacturing, which may indicate a breakdown in good manufacturing practices or allergen controls. Some common snack foods have allergen-free claims on the labels, implying that measures have been taken by the company to ensure that the claim is accurate and the product is truly allergen-free, which provides a measure of reassurance to an allergic individual or their caregiver.

Children represent a susceptible sub-population, and this survey complements previous undeclared allergen targeted surveys by focussing on testing for peanut in foods that could be included in older children's lunches. This targeted survey provided baseline information on the presence and levels of undeclared peanut in prepackaged snack foods (specifically chocolate, cookies, and snack bars) which had a peanut-free claim on the label. The sampled foods did not have peanut in the list of ingredients or in a precautionary statement.

2.3 Sample Selection

A total of 989 food samples were collected nationally from retail stores in 6 Canadian cities between June 2013 and March 2014. Specific brands were not targeted. This survey targeted prepackaged snack foods that had a peanut-free claim on the label.

The 989 survey samples included 287 domestic products, 96 imported products (most of which were from the United States), and 606 products of unspecified origin. An unspecified country of origin refers to those samples for which the origin is not indicated on the product label. It is important to note that the products sampled often contained

ⁱBased on self-reported allergies

the statement “packaged in Country X”, “imported for Company A in Country Y” or “manufactured for Company B in Country Z”, and though the labelling meets the intent of the regulatory standard, it does not specify the true origin of the product ingredients. Only those products labelled with a clear statement of “Product of”, “Prepared in”, “Made in”, “Processed in”, and “Manufactured by” were considered as being from a specific country of origin.

2.4 Limitations

This targeted survey was designed to provide a snapshot of the presence and levels of undeclared peanut in selected foods available to Canadian consumers, and highlight commodities that warrant further investigation. The limited number of samples analyzed represents a small fraction of the products available to consumers. Therefore, care must be taken when interpreting and extrapolating these results. Few inferences or conclusions were made regarding the data with respect to country of origin (refer to Section 2.3).

Given that all finished food products in this targeted survey could be considered ready-to-consume/eat, results herein represent samples as sold/available on the Canadian retail market.

3 Results and Discussion

3.1 Overview of Survey Results

Samples in the Peanut in Snack Foods with a Peanut-Free Claim Targeted Survey were analyzed by an accredited food testing laboratory under contract with the Government of Canada. Commercially available ELISA-based allergen testing kits were used for analysis. These kits are manufactured by various companies who may use different materials to calibrate and standardize their tests. Consequently, when data is generated by these different kits, the results cannot necessarily be directly compared to one another. To eliminate this issue, CFIA usually converts the result found to a common unit of measurement (i.e., concentration of soluble allergen protein in parts per million (ppm)) by applying a conversion factor. Details relevant to interpretation of the results of this survey can be found in sections below.

None of the 989 samples were positive for peanut. Follow-up actions were not deemed necessary given that none of the samples were positive for peanut.

The following sections present the analysis results for undeclared peanut in each product type.

3.2 Results by Product Category and Product Type

3.2.1 Chocolate

Four types of prepackaged chocolate products were sampled in this survey, all of which had a peanut-free claim on the label. The 397 samples analyzed included candy bars/chocolate with other ingredients (e.g., nuts, rice, fruit, toffee, caramel, mint, crème, fondant, marshmallow, wafer, etc.), baking chocolate, pure chocolate bars, and chocolate chips. None of the chocolate samples were positive for peanut. See Table 1 for a summary of chocolate products tested.

Table 1. Summary of Prepackaged Chocolate Products

Product Type	Domestic	Imported	Unspecified*	Total
Baking - Dark	0	1	4	5
Baking - Fondue (Dark/Milk)	9	0	0	9
Bars - Candy	67	37	177	281
Bars - Pure Dark	6	4	12	22
Bars - Pure Milk	26	4	18	48
Chips - Pure Dark	3	0	0	3
Chips - Pure Milk	4	0	1	5
Chips - Other	0	21	3	24
Total	115	67	215	397

*Unspecified refers to those samples for which the country of origin could not be determined from the product label

3.2.2 Cookies

More than two dozen types of prepackaged cookies were sampled in this survey, all of which had a peanut-free claim on the label. The 398 samples analyzed included soft, filled, butter, sugar, and seasonal cookies, in a variety of flavours. None of the cookie samples were positive for peanut. See Table 2 below for a summary of cookie products tested.

Table 2. Summary of Prepackaged Cookie Products

Product Type	Domestic	Imported	Unspecified*	Total
Animal/Arrowroot/Digestive	9	0	16	25
Brownie/Chocolate/Chocolate Chip	28	9	71	108
Butter/Shortbread	4	0	10	14
Fruit/Nut	10	0	20	30
Gingersnaps/Gingerbread	16	3	7	26
Graham/Molasses	4	0	18	22
Marshmallow	4	0	7	11
Oatmeal	3	1	11	15
Plain/Tea	2	1	12	15
Sandwich/Filled	25	0	73	98
Spice/Sugar	13	3	5	21
Vanilla/Coated/Biscotti	2	1	10	13
Total	120	18	260	398

*Unspecified refers to those samples for which the country of origin could not be determined from the product label

3.2.3 *Snack Bars*

Three types of prepackaged snack bar products were sampled in this survey, all of which had a peanut-free claim on the label. The 194 samples analyzed included fruit-filled cereal bars (e.g., apple, blueberry, strawberry, etc.), granola bars (often with nuts and/or dried fruit, or containing/coated with chocolate), and snack/fruit bars (e.g., fruit paste-type bars with seeds, marshmallow treats, fruit-juice based snacks, etc.). None of the snack bar samples were positive for peanut. See Table 3 for a summary of snack bar products tested.

Table 3. Summary of Prepackaged Snack Bar Products

Product Type	Domestic	Imported	Unspecified*	Total
Bars - Cereal	7	0	17	24
Bars - Granola	36	5	94	135
Bars - Snack	6	6	20	32
Fruit Bars/Snacks	3	0	0	3
Total	52	11	131	194

*Unspecified refers to those samples for which the country of origin could not be determined from the product label

4 Conclusions

This targeted survey obtained baseline information regarding the presence and levels of undeclared peanut in prepackaged snack foods which have a peanut-free claim on the label.

A total of 989 prepackaged snack food samples (chocolate, cookies, and snack bars) with a peanut-free claim on the label were collected and analysed for the presence of peanut in this survey. None of the samples were positive for peanut. Follow-up actions were not deemed necessary given that none of the samples were positive for peanut.

The CFIA will continue its surveillance activities and inform the Canadian public and stakeholders of its findings.

5 References

¹ Department of Justice. *Food and Drugs Act (R.S.C., 1985, c. F-27). Part I. Food. 5 (1)*. [online]. Last modified August 18, 2014. Consulted August 20, 2014, <http://laws-lois.justice.gc.ca/eng/acts/f-27/index.html>

² Health Canada. *Health Canada's Modifications to Regulatory Project 1220 - Enhanced Labelling for Food Allergens, Gluten Sources and Added Sulphites* [online]. Published June 2010. Consulted August 15, 2014, <http://www.hc-sc.gc.ca/fn-an/label-etiquet/allergen/proj1220-modifications-eng.php>

³ Health Canada. *Food Allergies and Intolerances*. [online]. Last modified August 22, 2012. Consulted August 20, 2014, <http://www.hc-sc.gc.ca/fn-an/securit/allerg/index-eng.php>

⁴ Al-Muhsen, S., Clarke, A.E., and Kagan, R.S. Peanut allergy: an overview. *CMAJ: Canadian Medical Association Journal*. 168 (12); (2003 June 10): 1529.

⁵ Health Canada. *Research Related to the Prevalence of Food Allergies and Intolerances*. [online – Archived June 24 2013]. Last modified November 22, 2010. Consulted August 20, 2014, http://www.hc-sc.gc.ca/fn-an/securit/allerg/res-prog/allergen_research-eng.php

⁶ Soller, L., Ben-Shoshan, M., Harrington, D.W., Fragapane, J., Joseph, L., St. Pierre, Y., Godefroy, S.B., La Vieille, S., Elliott, S.J., and Clarke, A.E. Overall prevalence of self-reported food allergy in Canada. *Journal of Allergy and Clinical Immunology*. Volume 130, Issue 4 (October 2012): 986-988.