

November 2011





Canada's agri-food sector is interested in promoting the nutritional and health benefits of food products through the use of health claims, nutrient content claims and other information provided on food labels. Potential opportunities stem from dietary guidelines recommending increased whole grain consumption, approved health claims in other jurisdictions and consumer demand for whole grain products. This report examines market penetration and communication of whole grain claims on the labels of food products sold in Canada and in other jurisdictions, their importance to consumers and potential opportunities for promoting the health benefits of whole grains. This information has been compiled from a variety of sources and is supported by data on new product launches bearing whole grain claims entering the market since 2006. 1

# **Defining and Identifying Whole Grains**

The American Association of Cereal Chemists International (AACC) defines whole grains as consisting of the "intact, ground, cracked or flaked fruit of the grain whose principal components, the starchy endosperm, germ and bran, are present in the same relative proportions as they exist in the intact grain" (AACC 2010). To be considered whole grains, foods that undergo processing and reconstitution must deliver the same proportion of endosperm, germ and bran as that of the original grain. The AACC definition of whole grain has been adopted by several countries, including the U.S., U.K., Sweden and Denmark. These updated definitions include a list of qualifying grains and a list of permitted processing methods. The definitions allow for minor losses of components through traditional processing methods and natural variations that exist between batches of grains.

According to the AACC definition of whole grain, multi-grain is not necessarily whole grain and whole wheat may or may not be whole grain. If all parts of the grain are used in the same relative proportions as they exist in the original kernel, then it is considered whole grain. However, under the Canadian Food and Drug Regulations, the standard for whole wheat flour permits the exclusion of up to 5% of the wheat kernel to help reduce rancidity and prolong the shelf life of whole wheat flour. The part that is removed contains much of the germ and some of the bran, resulting in flour that is no longer considered whole grain by the new AACC definition. As a result, Canada is currently in the process of reviewing its definition of whole grain to align more closely with international standards.

Variations in the existing global definitions for whole grain and whole wheat have made it difficult for consumers to understand food labels and determine what is meant by the terms "whole grain", "multi-



grain" and "whole wheat", as well as the various names used for processed grains identified on ingredient lists (Miller Jones, 2010). The Whole Grains Council (WGC) and its internationally affiliated groups have addressed the need for a standardized way of communicating whole grain content on food labels by creating a unique whole grains logo. The WGC has developed the basic Whole Grain Stamp, which identifies a product containing a minimum

amount of whole grain (~ 8 g/serving), and the 100% Whole Grain Stamp identifying 100% whole grain content (~16 g/serving). The logo differs slightly depending on country-specific requirements. For example, the Canadian version is bilingual. To use the stamp, a company must be a paid

Source: Mintel Global New Products Database 2011. New product launches only (which can include an existing product relaunched with a claim); does not represent the total number of products on the market



member of the WGC. The WGC states that the Whole Grain Stamp appeared on 5,600 different products in 23 countries as of July 2011.<sup>2</sup>



Some multinational companies have developed their own unique whole grain identifiers. In the case of General Mills, the whole grain checkmark logo is used to identify whole grain content, mainly in cold breakfast cereals. In 2005, General Mills converted the entire line of "Big G" (G for goodness) cereals to include at least 8 g of whole grains per serving; more than 20 of these cereals deliver 16 g or more. The whole grain checkmark can be found on over 50 varieties of Big G cold cereals sold

internationally. The logo has minor variations depending on specific country or language requirements.

In Canada, many companies identify whole grain content by their own unique logos or by using label claims such as "contains whole grains" and "made with 100% whole grains". In response to updated whole grain definitions internationally and in anticipation of the updated Canadian definition, many manufacturers in Canada have begun taking a consistent approach to identifying whole grain content in the list of ingredients by using "whole grain (name of grain or flour)". This approach will allow the consumer to more accurately identify whole grains in a product and make informed choices.

### **Dietary Importance of Whole Grains**

Dietary guidelines in Canada and in other countries recommend consuming whole grain products as a component of healthy eating (**Table 1**). In Canada, use of the *Eating Well with Canada's Food Guide* statements on food labels or in advertising would be considered general health claims. General health claims promote health through healthy eating or provide dietary guidance; they do not refer to a health effect, disease, or health condition. References to the Food Guide are permitted for use on labels and in advertising provided principles for their use are followed.<sup>3</sup>

Table 1: Some Whole Grain Dietary Recommendations Around the World			
Country	Guideline	Recommendations	
Canada	Eating Well with Canada's Food Guide (2007)	"Make at least half of your grain products whole grain each day. Eat a variety of whole grains such as barley, brown rice, oats, quinoa and wild rice. Enjoy whole grain breads, oatmeal or whole wheat pasta." At least three Food Guide Servings of whole grains are recommended for all Canadians aged 9 and up.	
Australia	Australian Dietary Guidelines and The Australian Guide to Healthy Eating (2003)	"Eat plenty of cereals (including breads, rice, pasta and noodles), preferably wholegrain." The recommended number of daily cereal servings for adults aged 19 to 60 years is 4 to 9 for women and 6 to 12 for men. A serving equates to two slices of bread; one cup of cooked rice, pasta or noodles; one cup of porridge; one cup cereal flakes; or half a cup of muesli.	
China	Dietary Guide for Chinese Residents (2008)	The Chinese Ministry of Health and the Chinese Nutrition Society (CNS) recommend that adults consume 50 g of "coarse grain and whole grain food" daily, and that the elderly consume 100 g.	
Denmark	National Food Institute report on the health benefits of whole grains (2008)	Danes should consume a minimum of 75 g of whole grains daily (based on a 2400 calorie diet; about 63 g daily for a 2000 calorie diet.) This agrees with the dietary guideline (2005) advising an intake of 500 g potatoes, rice, pasta, bread and grains per day.	
United Kingdom	Guidelines for a Healthy Diet	The Food Standards Agency uses the Eatwell Plate as its food guidance image, and advises that, "Starchy foods, such as potatoes, bread, cereals, rice, pasta should make up about a third of the food you eat. Wherever you can, choose wholegrain varieties."	
United States	Dietary Guidelines for Americans (2010)	"Consume at least half of all grains as whole grains. Increase whole-grain intake by replacing refined grains with whole grains." The U.S. uses MyPlate (2011) as its food guidance image.	

<sup>&</sup>lt;sup>2</sup> www.wholegrainscouncil.org/newsroom/whole-grain-statistics

<sup>&</sup>lt;sup>3</sup> General Principles for the Use of Content from Canada's Food Guide Resources in Labelling and Advertising www.hc-sc.gc.ca/fn-an/food-guide-aliment/gen\_prin-eng.php

# **Trends in Whole Grain Products in the Marketplace**

Consumers are aware of dietary recommendations for whole grains and they are interested in consuming whole grains for health. In fact, "whole grain" was the most sought-after claim on food labels in 2010 in the U.S., followed by high fibre and low sodium (IFT 2011). Baby boomers, the largest generational group in Canada, will continue to be a big driver in the demand for whole grain products as they look to manage their health and improve or maintain their quality of life through nutrition. They are actively looking for products containing whole grains. As a result, many companies are adding whole grains to their products and identifying them on product labels.

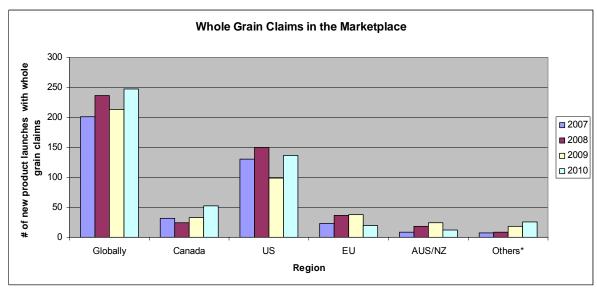


Figure 1: Number of New Products in the Global Market Bearing "Whole Grain" Claims

\* "Others" include Brazil, China, India, Mexico, South Korea, Russia combined Source: Mintel Global New Products Database (January 1 to April 20, 2011)

The steady increase since 2007 in the number of new product launches in the market bearing whole grain claims (**Figure 1**) indicates that industry is responding to consumer demand for whole grain products. New product launches bearing whole grain claims were most prevalent in North America (**Figure 1**). The majority of products found on retail store shelves would be considered reconstituted whole grain products, meaning that after the grain is separated into its components through the milling process, it is recombined to contain the same relative proportions that existed in the original grain.

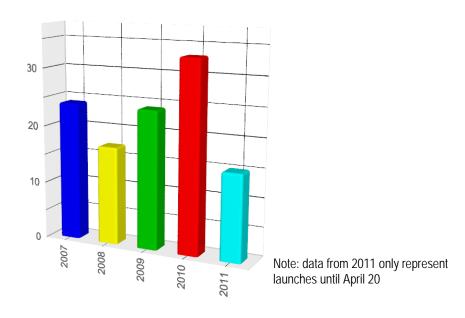
In Canada, manufacturers of cold cereals, cereal bars and bread and bread products are using whole grain claims most frequently (**Table 2**); these three sub-categories accounted for three quarters of all product launches with whole grain claims. The 49 cold cereal products with whole grain claims, which include General Mills "Big G" cereals bearing the whole grain checkmark, represent just over one quarter (26%) of the cold cereal category. Datamonitor (2008) indicates that breakfast is the main avenue for whole grain consumption and that consumers are looking for convenient ways to consume fibre and whole grain products.

Table 2: Product Categories with Whole Grain Claims in Canada, 2007–2011			
	Number of Products		
Sub-Category	Total	With whole grain claims	
Baby Snacks	18	3	
Baking Ingredients & Mixes	14	1	
Bread & Bread Products	153	22	
Cakes, Pastries & Sweet Goods	39	2	
Cold Cereals	186	49	
Fruit Snacks	4	2	
Hot Cereals	27	7	
Pasta	51	1	
Savoury Biscuits/Crackers	53	5	
Shelf-stable Desserts	1	1	
Snack/Cereal/Energy Bars	97	49	
Sweet Biscuits/Cookies	57	15	
Wheat & Other Grain Based Snacks	10	4	
Total	710	161	

Source: Mintel Global New Products Database 2011

There appears to be a continuing trend to add whole grain claims to product labels both globally and in Canada, as indicated by the increase in the number of new product launches over time (**Figures 1 and 2**), including the significant number of new product launches already evident in the first quarter of 2011 (19 for Canada; 51 for the U.S., and 88 globally) (Mintel 2011).

Figure 2: New Product Launches with Whole Grain Claims — Canada



Source: Mintel Global New Products Database 2011 (January 1 to April 20, 2011)

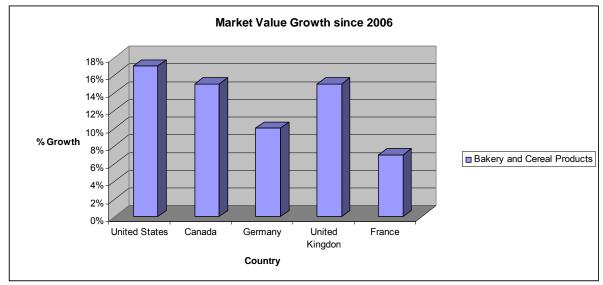


Figure 3: Market Value Growth of Products Bearing Whole Grain Claims Since 2006

Source: Datamonitor Market Data Analytics 2011

**Figure 3** indicates the total percentage market value growth in the bakery and cereal product category as a whole since 2006, including products with and without whole grain claims. This category represents all the sub-categories identified in **Table 2**. The market value of bakery and cereal products has increased every year since 2006 for each country presented.

# **Health Claim Opportunities**

It is important for consumers to be able to clearly identify whole grain content and understand the health benefits of consuming whole grains. Manufacturers can take a responsible approach that supports informed choice by using pre-approved health claim statements.

### **Claims in Other Jurisdictions**

Health claims related to whole grain consumption have been approved in some jurisdictions. For example, the following claims are approved for use in the U.S.:

- "Diets rich in whole grain foods and other plant foods, and low in saturated fat and cholesterol, may help reduce the risk of heart disease."
- "Diets rich in whole grain foods and other plant foods and low in total fat, saturated fat, and cholesterol, may help reduce the risk of heart disease and certain cancers."

Conversely, health claims related to whole grain consumption have been rejected in other jurisdictions. The European Food Safety Authority (EFSA) is one of the authoritative bodies that has rejected health claims for whole grains, because of insufficient characterization of the food constituent "whole grain" in relation to the health claim (EFSA, 2010).

An earlier Cochrane Review on wholegrain cereals for coronary heart disease found evidence supporting the effects of "whole grain oats" on blood lipids. The reviewers did not find supporting evidence for other whole grains because of a lack of well-designed, long-term randomised controlled trials on wholegrain foods and diets other than oats (Kelly et al., 2007).

#### Claims in Canada

In Canada, a therapeutic claim is permitted that links the consumption of beta-glucan oat fibre to a reduction of blood cholesterol. Eligible sources of beta-glucan oat fibre approved by Health Canada for the health claim are oat bran, rolled oats (or oatmeal), and whole oat flour, either as the foods themselves or as ingredients in formulated foods (Health Canada, 2010). No claim is permitted for whole grains while regulators update the official definition for whole grains and standards for flours.

For a health claim to be approved in Canada, it is necessary to present a good-quality submission by identifying and filling any gaps in research required to substantiate the claim according to the requirements of Health Canada's <u>Guidance Document for Preparing a Submission for Food Health Claims</u>. For example, the food constituent "whole grain" needs to be sufficiently characterized.

To expedite the submission process for health claims that have been reviewed in other jurisdictions, Health Canada has developed the *Guidance Document for Preparing a Submission for Food Health Claims Using an Existing Systematic Review*. This guidance document outlines the requirements for a complete health claim submission based on an existing literature review. Health Canada has identified five regulatory or scientific organizations with standards of evidence similar to Canada's standards, including EFSA and the Cochrane Collaboration. The results of the EFSA and Cochrane reviews suggest that additional research gaps need to be addressed prior to making a submission on whole grains.

The Food Regulatory Issues Division (FRID) of Agriculture and Agri-Food Canada provides assistance to Canada's agri-food sector in navigating Canada's regulatory system for health claims, novel foods and ingredients. FRID can provide mentoring and guidance in the health claim and novel food submission process.

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## **Select Resources**

### **Agriculture and Agri-Food Canada**

- Canada's Regulatory System for Foods with Health Benefits—At a Glance www.agr.gc.ca/food-regulatory-issues
- Promising Health Claim Opportunities for Canada's Agri-Food Sector www.agr.gc.ca/food-regulatory-issues (select "Reports and Reviews")
- Best Practices in Promoting Food Health Benefits www.agr.gc.ca/food-regulatory-issues (select "Reports and Reviews")

#### **Health Canada**

- Position Paper on Five US Health Claims Considered for Use in Canada; A.2 Definition of Whole Grain www.hc-sc.gc.ca/fn-an/label-etiquet/claims-reclam/position\_paper-enonce\_position-eng.php#a2
- Whole Grains—Get The Facts
   www.hc-sc.gc.ca/fn-an/nutrition/whole-grain-entiers-eng.php
- Canada's Food Guide to Healthy Eating www.hc-sc.gc.ca/fn-an/food-guide-aliment/index-eng.php
- General Principles for the Use of Content from Canada's Food Guide Resources in Labelling and Advertising

www.hc-sc.gc.ca/fn-an/food-guide-aliment/gen prin-eng.php

- Guidance Document for Preparing a Submission for Food Health Claims <u>www.hc-sc.gc.ca/fn-an/legislation/guide-ld/health-claims\_guidance-orientation\_allegations-sante-eng.php</u>
- Guidance Document for Preparing a Submission for Food Health Claims Using an Existing Systematic Review www.hc-sc.gc.ca/fn-an/legislation/guide-ld/systemat-revi-sub-eng.php

**Contact us** to learn more about regulations for health claims, novel foods and ingredients.

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Cat. No. A72-108/2011E-PDF ISBN 978-1-100-19326-7 AAFC No. 11629E

Electronic version available at www.agr.gc.ca/food-regulatory-issues

Aussi offert en français sous le titre : Les allégations concernant les grains entiers sur le marché

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