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"Gluten Free" Claims in the Marketplace

The growing North American demand for gluten-free products provides an opportunity for Canada's agriculture and agri-food sector to capitalize on the market potential. This report provides insights into the market growth of gluten-free products, and the communication of gluten-free claims on labels of food products sold in Canada and the U.S. It describes general trends along with issues related to pure, uncontaminated oats. The information has been compiled from a variety of sources, and is supported by data on new product launches.

A Growing Market Segment

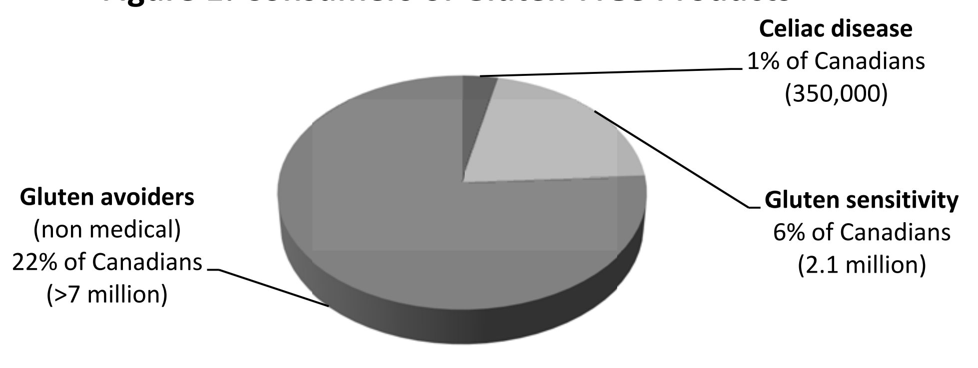
"Gluten free" is the fastest growing food intolerance category (AAFC 2013, 2012), indicating that this market has strong growth potential in coming years. The dynamic growth is a result of increasing awareness of celiac disease[1] and avoidance of gluten for other reasons, combined with increased availability of gluten-free products at mainstream retail outlets, and improved product quality.

Reasons for Purchase

Celiac disease is recognized as one of the most common chronic diseases world-wide (Health Canada 2008), affecting an estimated 1% (1/133) of Canadians and Americans, with less than 10% of people with celiac disease having been diagnosed. Consumers with celiac disease or sensitivity to gluten are seeking information on product ingredients and production methods, as gluten-free foods are not an optional lifestyle choice but are necessary to prevent adverse reactions. As a gluten-free diet is the only current treatment for celiac disease, the demand for these types of products will continue to grow.

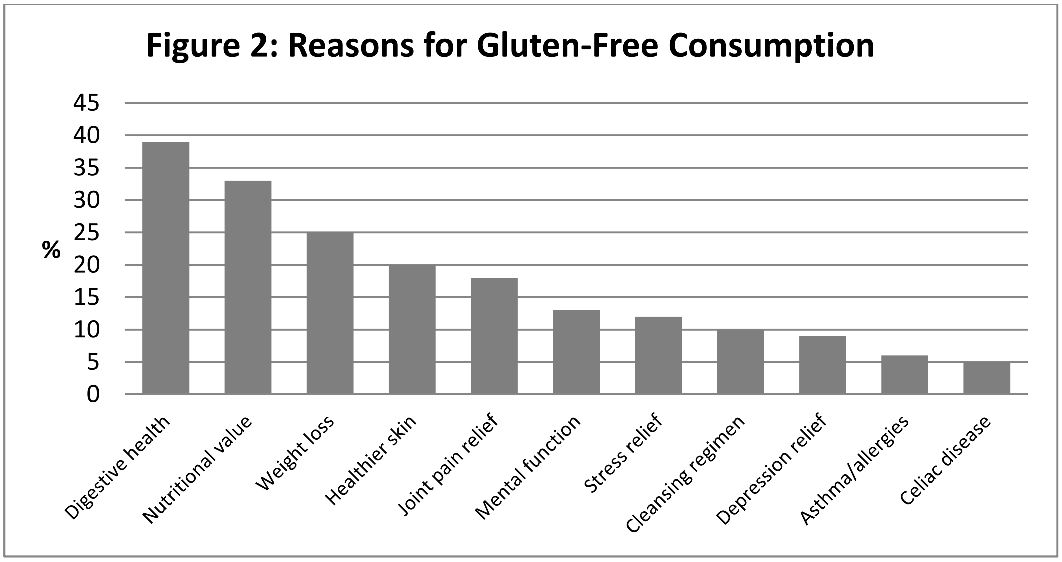
Almost one third of Canadians (10 million) are looking for gluten-free products (Figure 1). This includes about 2.5 million Canadians requiring gluten-free products for medical reasons (celiac disease = 1% or 350,000; non-celiac gluten sensitivity = 6% or 2.1 million). The vast majority, more than 7 million, perceive gluten-free products to be a healthier choice or in some cases have a family member with a medical need. Figure 2 shows more detailed reasons for consumption of gluten-free products.

Figure 1: Consumers of Gluten-Free Products



Source: Canadian Celiac Association, Gluten-Free Certification Program presentation, 2013

[1] **Celiac disease** is an inherited autoimmune disease in which eating gluten, a storage protein found in wheat and other grains, causes severe damage to the small intestine where nutrients are absorbed. It is estimated to affect 1% of the population, or 350,000 Canadians. **Gluten sensitivity** triggers many of the same symptoms as celiac disease, without the autoimmune response. The only treatment for these conditions is a strict, lifelong gluten-free diet.



Source: Adapted from Hartman Group 2013 (U.S. consumers)

An estimated 10% of Canadians indicated they were making a special effort to find gluten-free food when buying food for themselves and their household (Ipsos Public Affairs 2013). In the U.S. one in four adults said they were cutting down or avoiding gluten completely (NPD Group 2013), and 31% of Americans who were not eating gluten-free foods said they were interested in trying them (Mintel 2013). In addition, interest in gluten-free and wheat-free items in Canadian restaurants has been growing steadily since 2010, having increased 137% in the past 3 years (NPD Group 2013).

Expected Market Trend

Market reports differ in their sales figures due to variations in methodology, but all agree that the market for gluten-free foods has seen tremendous growth over the past 5 years and predict that growth over the next 5 years will remain significant although somewhat slowed.

According to Packaged Facts (2013), Canada's gluten-free market had a compound annual growth rate of more than 26% over the past 5 years (2008 to 2012). The 2012 sales value for gluten-free foods in Canada has been estimated by various sources at $27 million (Euromonitor 2013), $82 million (Markets&Markets 2013), and $460 million (Packaged Facts 2013).

The global gluten-free market is projected to reach US$6.2 billion by 2018, with North America contributing about 59% of the share (Markets&Markets 2013). The U.S. is the largest and fastest-growing gluten-free market globally. Although Canada represents only about 4% of the world dollar volume, the market is growing at parallel rates to the U.S.

By 2016, market growth is projected to slow to the single digits with a declining demand tied to consumer perception of healthfulness. Even so, the demand for "gluten free" appears to be a legitimate trend in Canada, with enough traction that any decline in the health fad will not significantly affect growth. This seems to be even truer in Canada than in the U.S. — compared to U.S. consumers, Canadians are more likely to report purchasing gluten-free products because someone in their household has celiac disease or a gluten or wheat allergy or intolerance (Packaged Facts 2013). As a result, the sector in Canada is expected to grow at least 10% each year through to 2018 (Markets&Markets 2013; Packaged Facts 2013).

Defining Gluten-Free Claims

"Gluten" is the collective term used to describe storage proteins in grains – wheat (gliadin), barley (hordein) and rye (secalin). Currently in Canada, oats (avenin) is also included. In Canada and in the U.S., the use of the claim "gluten free" is voluntary; however, in both countries a packaged food product labelled "gluten free" must contain less than 20 parts per million (ppm) of gluten and comply with additional criteria (Table 1).

Table 1: Gluten-Free Claims – Comparison between Canada and the United States		
	Canada	**United States**
Voluntary or mandated	Voluntary	Voluntary
Date of ruling	1995 Amended February 16, 2011 Came into force August 4, 2012	August 5, 2013 (effective September 4, 2014) Compliance date August 5, 2014
List of gluten-containing grains	Wheat, rye, barley, **oats**	Wheat, rye, barley
Threshold level for gluten-free claims	Not exceeding 20 ppm	Less than 20 ppm
Scope of foods eligible to make a gluten-free claim	Foods for special dietary use (specially formulated or processed)	Any foods that meet the requirements (<20 ppm), **including inherently gluten-free foods**
Is intentional addition of gluten-containing ingredients allowed?	No, unless specially processed to remove gluten and food is <20 ppm	No, unless specially processed to remove gluten and food is <20 ppm
Low gluten or very low gluten claims	Not defined	Not defined

Sources: Department of Justice Canada, Food and Drug Regulations; U.S. FDA *Federal Register* 2013
ppm = parts per million

As of 2012, Canadian food allergen labelling regulations require that specific priority food allergens and gluten sources be declared on the label of prepackaged foods sold in Canada (Canada Gazette 2011). Cereal grains containing gluten are defined in the Food and Drug Regulations (FDR) to be barley, oats, rye, triticale and wheat (including kamut and spelt).

Canada is one of the few countries in the world with a regulation regarding the use of the term “gluten free”. Canada’s definition of gluten-free is outlined in the FDR (Department of Justice Canada), and interpretation including the accepted threshold level, is clarified in *Health Canada’s Position on Gluten-Free Claims* (Health Canada 2012a). Division 24 of the FDR is intended to protect the health and safety of individuals who require foods for special dietary use. Only foods that have been specially processed or formulated to meet the needs of individuals who need to follow a gluten-free diet to protect their health are considered foods for special dietary purposes and are allowed to carry a gluten-free claim. For example, a bread specially formulated with substitute flours from grains that are not one of the gluten sources (i.e. wheat, rye, barley, oats, triticale) could be labelled “gluten free” if it meets all other requirements of the FDR.

In the U.S., the August 2013 ruling on gluten-free labelling standards by the U.S. Food and Drug Administration (U.S. FDA 2013) for the first time set out a regulated threshold for how much gluten could be in a product labelled “gluten free”. The rule is similar to Canada’s requirements with two notable exceptions: in the U.S., products that are inherently gluten-free (e.g. bottled water, carrots) can be labelled “gluten free”, and products containing oats can bear a “gluten free” label provided certain conditions are met, as the U.S. rule does not define oats as a gluten-containing grain.

Gluten-Free Claims for Oat Products

Oats in the Diet of People with Celiac Disease

Historically, oats were not allowed on the gluten-free diet used to treat those with celiac disease. Cross-contamination of regular commercial oats with gluten-containing grains can occur at any point in the production chain as they are typically grown, harvested, transported, stored, milled or packaged in close proximity with other cereal grains, under practices accepted by Canadian regulations. Another concern was that the avenin protein in oats was believed to trigger a similar reaction in the small intestine as wheat, rye and barley.

More recently, “pure” oats produced from dedicated fields and equipment were developed in Canada. Every level of their production from seed to packaging must be controlled to eliminate cross-contamination with other cereal grains. Health Canada completed a safety assessment which determined that pure, uncontaminated oats are tolerated in moderate amounts by most people with celiac disease. Moreover, oats can represent a beneficial addition to their diet in terms of improved nutritional value, increased food choices, and enhanced palatability (Health Canada 2007; Pulido et al., 2009). For those with celiac disease who do not tolerate pure oats, areas of ongoing research include a potential immunological response to oat avenins, and variations in effects of different oat cultivars.

A growing number of health professionals and celiac organizations around the world now accept the consumption of moderate amounts of pure, uncontaminated oat products in a gluten-free diet. The Canadian Celiac Association (CCA) (CCA 2007a, 2007b; Rashid 2007) indicates that adults with celiac disease can safely consume half to three-quarters of a cup (50 to 70 grams) of pure dry rolled oats per day, and that children can consume one-quarter cup (20 to 25 grams) per day. Oats should only be introduced when celiac disease is well controlled, and with supervision from a health care professional.

Toward Gluten-Free Labelling for Pure, Uncontaminated Oats

At the international level, the Codex standard revised in 2008 includes oats in the list of grains not permitted in foods labelled as "gluten free". However, the standard notes that: "Oats can be tolerated by most but not all people who are intolerant to gluten. Therefore, the allowance of oats that are not contaminated with wheat, rye or barley in foods covered by this standard may be determined at the national level." (Codex 2008).

In Canada, the term "gluten free" is not permitted on packaged food products containing oats; the FDR does not distinguish between regular oats and "pure" oats. Inability to label foods containing pure oats as gluten-free restricts consumer options. In addition, many "gluten-free" manufacturers are reluctant to introduce products using pure oats as their facility would no longer be considered gluten-free.

Health Canada is reviewing the regulatory requirement for gluten-free products with respect to pure, uncontaminated oats to account for the findings of its assessment of the safety of oats for people with celiac disease, and to reflect current scientific understanding that the protein portion of the cereal grain is the issue of concern for people with celiac disease (Health Canada 2012b), as well as confirming exposure levels (La Vieille et al. 2014). Health Canada recognizes the need to develop clear standards for pure oats and products that contain them, along with clear labelling to signal the presence of oats to protect those who are intolerant to pure oats (Health Canada 2010). As an interim measure, products containing pure oats can bear the label "wheat, rye and barley free". Temporary Marketing Authorizations are another interim measure but are resource intensive and have limitations including a lack of transparency with consumers.

Marketplace Trends for Gluten-Free Claims

The demand for new products and for variety in the gluten-free category is increasing. Consumers have noted an improvement in quality in recent years, although nearly 25% feel that certain types of products still need improvement in quality, taste or variety (Packaged Facts 2013). Industry has responded to these demands by launching new products, new varieties or range extensions, and new formulations. New product development has been the most widely used strategy for the gluten-free products industry. Innovation in ingredients and technology are particularly important for driving this market forward by addressing challenges faced by product formulators, including functionality, texture, taste, nutrition and appearance (e.g. use of flaxseed, rice, pulses).

Between 2007 and 2013, there were 2,344 food products and 197 beverage products with a gluten-free claim introduced to the Canadian marketplace. In the U.S. market, there were 10,482 new food products and 1,645 new beverage products with gluten-free claims. Products with gluten-free claims also gained market share, growing from 4.5% to 15.4% of total new product launches in Canada, and from 3.4% to 24.3% of new product launches in the U.S. (Table 2).

Table 2: Trends in the Number of Food Products with Gluten-Free Claims Launched in Canada and the U.S. Annually 2007–2013						
	Canada			United States		
Year	Total	Gluten-Free	% Gluten-Free	Total	Gluten-Free	% Gluten-Free
2007	4,767	216	4.5	17,686	603	3.4
2008	3,159	167	5.3	16,501	895	5.4
2009	3,139	136	4.3	11,811	934	7.9
2010	4,748	294	6.2	16,128	1,612	10.0
2011	5,550	392	7.1	15,330	1,683	10.1
2012	4,425	411	9.3	15,201	1,720	11.3
2013	4,720	728	15.4	12,512	3,035	24.3
TOTAL	30,508	2,344	7.7	105,169	10,482	10.0

Source: Mintel Global New Products Database, 2014

Top Categories

Snacks were the most popular category of gluten-free food products introduced in both Canada and the U.S. in 2013, representing almost one quarter of new launches (Table 3). In Canada, snacks included in particular fruit snacks (107), snack/cereal/energy bars (100) and potato snacks (100), and the bakery category was in second place. The U.S. had the same top seven categories as Canada; however, unlike Canada, dairy was the second place category.

Table 3: Top Categories of Gluten-Free Product Launches, 2007–2013		
Categories	Canada	U.S.
Total gluten-free food products	2,344	10,482
Snacks	570 (24%)	2,453 (23%)
Bakery	329 (14%)	1,107 (11%)
Sauces and seasonings	273 (12%)	1,218 (12%)
Processed fish, meat and egg products	244 (10%)	946 (9%)
Desserts and ice cream	127 (5%)	515 (5%)
Sugar and gum confectionery	120 (5%)	590 (6%)
Dairy	109 (5%)	1,327 (13%)
Total gluten-free beverages	197	1,645

Source: Mintel Global New Products Database 2014

Gluten-free products are moving from health food markets and expanding more into traditional grocery stores (Markets&Markets 2013). Several retailers including Wal-Mart, Loblaws, Metro and Sobeys now have private label gluten-free products. In 2013, 62% of gluten-free purchases were from supermarkets and mass merchandisers, 30% from health and natural food stores, and the remainder from club-type stores, drug stores and other retailers (Markets&Markets 2013).

Marketplace Trends for Oat Products

The U.S. has seen more development of food products containing oats and of oat products bearing gluten-free claims between 2007 and 2013 than Canada. This trend reflects the initial lack of regulation in the U.S., followed by the August 2013 ruling permitting gluten-free claims on products containing oats.

In the U.S., a total of 1,325 new products with oats listed as an ingredient were launched between 2007 and 2013 (Mintel GNPD 2014). Of these, 86 (6.4%) carried a gluten-free claim, almost half (42) of which were launched in 2013; almost three quarters (74%) were snack/cereal/energy bars, cold cereals and hot cereals. There were an additional 199 new U.S. products launched with the terms “just oats” (68), “only oats” (97) or “pure oats” (34) on the label, an indication that the product contains pure, uncontaminated oats.

In the same time period, Canada saw 48 products launched with “just oats” (5), “only oats” (16) or “pure oats” (27) on the label; these included hot cereals (18), cold cereals (11), snack/cereal/energy bars (11) and savoury biscuits/crackers (8) (Mintel GNPD 2014). Although eligible products can use the claim “wheat, rye and barley free”, no new products were found to be launched with that claim; however, some used a variant such as “contains no wheat, barley or rye”. The claims “wheat free” (90) and “rye free” (41) were also seen but these were not necessarily on oat products.

In North America, several companies are processing pure, uncontaminated oats for the market (Table 4). In addition to these producers, many companies are adding “gluten-free” oats to their produces in items such as granola, snack bars, muffins and breads.

Table 4: Examples of Producers/Processors of Pure Oats		
Company	**Product Examples**	**Website**
Canada		
Avena Foods (Only Oats™ brand)	Rolled oats, oat flakes, steel cut oats, mixes (muffin, cookie and pancake), oat bran, oat flour	www.avenafoods.com
Cream Hill Estates (Lara’s brand)	Rolled oats, oat flour, whole oat kernels (groats)	www.creamhillestates.com
Hilray Whole Grains	Rolled oats	www.hilray.com
U.S.		
Bob’s Red Mill	Rolled oats, steel cut oats, groats, oat bran cereal, oat bran	www.bobsredmill.com
GF Harvest	Rolled oats, steel cut oats, granola, oat flour, groats	www.glutenfreeoats.com
Gluten Free Prairie	Rolled oats, groats, toasted oat flour, granola bites, cookies	www.glutenfreeprairie.com
Montana Gluten Free	Oatmeal, oat flour, oat bran, pancake/waffle/baking mix	www.montanaglutenfree.com

Trends for Other Grains

When examining the use of 10 specific non-gluten-containing grains as ingredients used in new launches of food and drink products, corn and soy are dominant, followed by rice (Table 5).

Table 5: Number of Product Introductions (Food and Drink) with Ten Specific Gluten-Free Grains in Canada and U.S. Between 2007 and 2013		
Grain	**Canada**	**United States**
Corn	7,583	29,187
Soy	5,600	20,803
Rice	2,444	7,661
Millet	204	413
Quinoa	181	439
Buckwheat	137	317
Amaranth	85	243
Sorghum	51	135
Arrowroot	21	52
Teff	9	42

Source: Mintel Global New Products Database 2014

Between 2007 and 2013 there were 11,220 products launched in Canada and 39,430 products launched in the U.S. with at least one of these 10 gluten-free grains as an ingredient; 9% to 10% of these new products carried the gluten-free claim (1,003 in Canada and 4,128 in the U.S.), consistent with the overall trend in total new product launches and those with gluten-free claims over this time frame as seen in Table 2.

Conclusion

Interest in gluten-free foods is likely to remain high as the reasons for avoiding gluten continue to expand. The rising diagnosis of celiac disease, and the even larger segment of those with gluten sensitivity, will continue to drive gluten-free product consumption. The appeal beyond those with celiac disease is also important for manufacturers, marketers and retailers to consider. Consumers, especially those who depend on a gluten-free diet, will continue to rely on manufacturers to be transparent about their processes, and ensure their products are safe and affordable and that claims are credible.

Canada's solution to permitting gluten-free claims for products containing pure, uncontaminated oats will need to reflect current science and include suitable conditions to protect the health of people with celiac disease, including those who cannot tolerate pure, uncontaminated oats.

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