



# Gluten-Free: Increasing Opportunities with Increasing Awareness



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Finding value-added marketing opportunities for food products can be a struggle that requires some creativity. Occasionally, however, and often as a result of new scientific findings, a unique niche can develop that favors certain food products and eliminates others, based solely on one nutritional component that either prevents or causes disease. And if that disease increases in prevalence, certain segments of the food industry can be turned upside down.

When it comes to food choices, health concerns are perhaps the biggest motivator of changing consumer habits. New food products can more easily find a

market if they target a particular dietary need and aim to solve a problem for the consumer. People with lactose intolerance require dairy alternatives, for instance, so soy milk has become more prevalent. Flaxseed is of interest to consumers because it provides several heart-healthy compounds, including the increasingly recognized omega-3 fats as well as fiber.

Such is the case with gluten-free food products. The incidence of celiac disease is on the rise in North America, and since the only known management tool for the disease is a gluten-free diet (GFD), the marketing potential for gluten-free products, both in Canada and in the United States, is significant.

## Dealing with the Diagnosis

One of the most challenging recommendations a patient can receive from a physician is a change in diet. Most people have at least some emotional connections with food, and giving up favorites or altering eating routines can wreak havoc on day-to-day life. So imagine the reaction to a diagnosis of celiac disease and therefore the need to subsequently remove all traces of “gluten” from the diet.

Celiac disease occurs when the consumption of gluten proteins triggers an autoimmune response that damages the lining of the small intestine, which can reduce nutrient absorption and contribute to other ailments of the body and immune system. There is no known cure for celiac disease, but it can be successfully managed with a lifelong commitment to a GFD. All foods containing wheat, rye, barley, and most commercial oats must be eliminated from the diet, as well as many lesser known grains such as bulgur and triticale.

That prospect is, in itself, daunting to many patients; however, even more restrictions apply for prepared foods, where gluten is a popular ingredient in seasonings, sauces, dressings, marinades,

soups, prepared meats, corn- and rice-based breakfast cereals, candy, and flavored coffees and teas.

Celiac disease is far more prevalent than most people realize, mainly because it remains misdiagnosed in many cases.

Shelley Case, a registered dietitian based in Regina, SK, is a leading North American nutrition expert on celiac disease and the GFD. Case is a member of the Medical Advisory Boards of the Celiac Disease Foundation and Gluten Intolerance Group in the United States and the Professional Advisory Board of the Canadian Celiac Association (CCA). Her book, *The Gluten-Free Diet: A Comprehensive Resource Guide*, provides a comprehensive resource about the GFD.

“Last year the CCA released results of its survey of 5000 members,” says Case. “The average time it took to diagnose the disease was 11 to 12 years. Celiac is a multi-system, multi-symptom disease, and that makes it difficult to diagnose. People eventually diagnosed as celiac have been misdiagnosed with everything from Irritable Bowel Syndrome to Chronic Fatigue Syndrome. Infertility can even be a symptom.”

No hard data exist regarding the prevalence of celiac disease in Canada, so Canadian researchers look to the United States for data. Case points to a multicenter study of 13,000 people conducted in 2003 by Allesio Fasano, professor of pediatrics, medicine, and physiology at the University of Maryland School of Medicine, as being particularly revealing.

“What was significant about the study was not the results of the group considered at high risk for celiac disease,” says Case, “but the incredible rate of incidence in the control group—one in 133 people, which is ten to 20 times higher than previous estimates. That equates to more than 2.5 million people in the U.S.”

Even more startling is that estimates as to how many people remain undiagnosed run as high as 97%. “The demand for gluten-free products is in its infancy,” says Case, “but it’s growing exponentially. I first published my book in 2001. The first revision came out in 2003, and the third edition, which is nearly double the size of the first, came out just last year. There are now more than 2600 gluten-free specialty products listed in my book—even a beer produced by Anheuser-Busch.”

## Labeling Lag

Food labeling laws in Canada and the United States have not kept pace with consumer demand for information, but change is on the horizon in both countries. Current food regulations require the declaration of most, but not all, gluten-containing ingredients in prepackaged foods, so choosing the right products can be a hit-and-miss proposition for celiac consumers.

In the United States, the Food Allergen Labeling and Consumer Protection Act of 2004, which came into effect last year, requires that the eight known major food allergens, including wheat (but not rye and barley) be clearly identified on food labels. Another

step forward came in January of this year, when the U.S. Food and Drug Administration proposed a ruling to define the term “gluten-free” for voluntary use on food labels as follows:

the food does not contain any of the following: An ingredient that is any species of the grains wheat, rye, barley, or a crossbred hybrid of these grains (all noted grains are collectively referred to as “prohibited grains”); an ingredient that is derived from a prohibited grain and that has not been processed to remove gluten (e.g., wheat flour); an ingredient that is derived from a prohibited grain and that has been processed to remove gluten (e.g., wheat starch), if the use of that ingredient results in the presence of 20 parts per million (ppm) or more gluten in the food; or 20 ppm or more gluten.

Health Canada’s Food and Drug Regulations currently state that:

No person shall label, package, sell or advertise a food in a manner likely to create an impression that it is a gluten-free food unless the food does not contain wheat, including spelt and kamut, or oats, barley, rye, or triticale or any part thereof.

In 2004, Health Canada introduced a regulatory proposal to enhance labeling requirements for specific allergens, gluten sources, and sulfites in prepackaged foods sold in Canada. The recommendations state that the eight common food allergens (including wheat, spelt, kamut, oats, barley, rye or triticale, “or any protein-containing part thereof and hybridized strains of these grains”) must be declared on food labels by their common name in the list of ingredients.

The proposal also recommends that, if the name of the allergenic food is not already identified in the common name of the derivative, then the name of the allergenic food would have to appear in brackets following the ingredient. The proposal is still under consideration.

Both consumers and marketers of gluten-free products can benefit from these stricter regulations. Manufacturers and distributors will be able to focus their marketing efforts more accurately, and, with access to accurate information, consumers will be able to broaden the scope of their food choices.

Interestingly, consumer uptake of gluten-free products has been much more rapid in Canada in recent years than in the United States. Many products still found only in specialty stores in the United States have been available at major retail chains in Canada for several years.

One explanation for the difference could be the attention being paid by health professionals to celiac disease in Canada. Jerry Bigam is CEO of Kinnikinnick Foods, a company based in Edmonton, Alberta, that specializes in gluten-free food products.

“Health professionals such as Ms. Case,” says Bigam, “are instrumental in educating dietitians and other health professionals across Canada about the warning signs, so the disease is being diagnosed earlier, and more consumers are seeking out gluten-free alternatives.”

Kinnikinnick Foods is one of the world’s largest gluten-free food suppliers, and it has an interesting history. Back in 1991, an entrepreneur named Ted Wolff Von Selzam started baking in his home and marketing at the local farmers’ market in Edmonton, where customers were seeking, among other health foods, gluten-free baked goods. This led to a small retail store in Edmonton, where Ted sold gluten-free products such as cookies and crackers imported from Europe. In 1997, Jerry Bigam joined the company so that Kinnikinnick could expand beyond Edmonton into international markets.

“At that time,” Bigam says, “we estimated that perhaps one in 500 people had celiac disease, and even those numbers indicated potential profits. Now, we realize the numbers are actually more in the range of one person in 135 who have the disease.”

The increase in diagnosis has already translated into phenomenal growth for Kinnikinnick. With the addition of its 130,000-ft<sup>2</sup> facility in the spring of 2005, the company now has the largest dedicated gluten-free baking facility in the world. Ensuring that the facility remains gluten-free is critical, as people with celiac disease can be adversely affected by even low levels of gluten. Kinnikinnick provides free products to staff so that no gluten-containing food or ingredients are brought on-site.

Other companies in Canada that sell gluten-free products run the gamut—from the small, storefront bakery/café to the large, multinational distributor. For instance,

- At Panne Rizo in Vancouver, British Columbia, gluten-free baked goods are created “lovingly, by hand” for customers who visit the small, storefront bakery, deli, and café.
- Rizopia Food Products, located in Toronto, Ontario, has taken a single food product that is naturally gluten-free—rice—and turned it into a full line of pasta products.
- At Vancouver’s Soyaworld, gluten intolerance is just one of the dietary insensitivities targeted by its line of soy dairy alternatives.
- The biggest players in the industry, such as Kinnikinnick Foods, Montreal-based Glutino, and El Peto Products in Cambridge, Ontario, offer a wide variety of gluten-free products on a large scale—some produced in-house and others distributed on behalf of other manufacturers.

## Notes on Oats

One of the more controversial issues in the development of gluten-free products is the choice of whether or not to include oats. Some studies have shown that avenin, a protein found in oats that was once thought to be toxic to people with celiac disease, may in fact be safe.

“The studies have shown that consuming moderate amounts of pure, uncontaminated oats is safe for the majority of people with celiac disease,” says Case. “In response to this research, the Professional Advisory Board of the CCA issued a position statement on this issue which was approved by Health Canada.”

Currently, the CCA is working with Health Canada to ensure that pure oats can be made available to its members. Their strategy involves making pedigreed seed available for people with celiac disease. Canada has a seed purity and inspection system and a large number of qualified seed growers who can produce pure seed for celiac markets. Cream Hill Estates in LaSalle, Quebec, became the first company in North America to market products with oats that are pure and uncontaminated, and Regina-based FarmPure Foods is currently developing similar products.

The gluten-free market offers significant opportunities for food companies—but the challenges with developing tasty and affordable products that guarantee purity are daunting. As celiac disease continues to become more prevalent, those food manufacturers that appreciate and address the inherent product development challenges will be the ones who will see success.

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