



THE LATEST i2s BRIEF: HEALTH & NUTRITION™

i2s

GOING GLUTEN-FREE BY CHOICE

Currently, 20% of U.S. consumers purchase gluten-free products but do not have celiac disease.¹ Get our latest insights into why these consumers are drawn to gluten-free foods and how you can best appeal to this growing group.

Ingredient

idea labs™

IDEAS TO SOLUTIONS

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APPEAL TO THE NEW **GLUTEN-FREE** **CONSUMER**

Who are the voluntarily gluten-free consumers, and what are they looking for in the products they buy? In April 2017, Ingression conducted online interviews with 1,000 consumers in the U.S. and Canada who do not suffer from celiac disease and have recently purchased and consumed gluten-free tortillas, snacks, crackers or frozen pizzas. The results were used to bring you this i2s brief.

THE NEW FACE OF GLUTEN-FREE

In our study of 1,000 U.S. and Canadian consumers who purchase gluten-free products, 46% reported doing so for reasons other than gluten sensitivity or intolerance. Our research offers new insights into who these consumers are, how they shop and why they're choosing gluten-free.

WHO THEY ARE



AVERAGE AGE
49



65%
HAVE HOUSEHOLD INCOMES OVER
\$50,000



FEMALE
65%



MARRIED
68%



46.5%
HOLD AT LEAST A BACHELOR'S
DEGREE

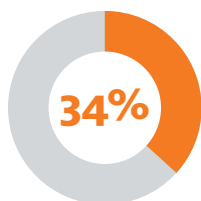


34%
HAVE CHILDREN

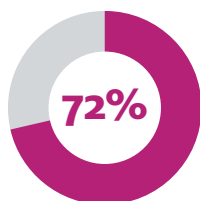


20%
OF THESE CHILDREN EAT
GLUTEN-FREE

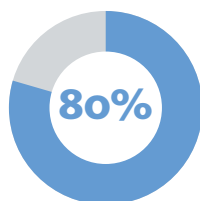
HOW THEY SHOP



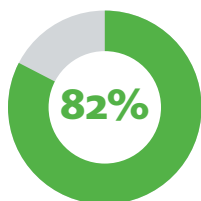
of their grocery budgets are spent on gluten-free food



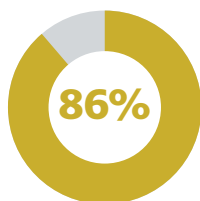
are responsible for all or most of the household grocery shopping



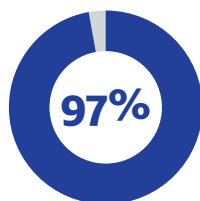
look for a gluten-free icon or claim



look at the ingredient list to determine if a product is gluten-free

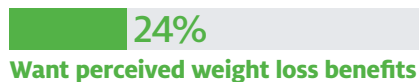


are willing to pay more for "healthy" products



look at the ingredient list prior to purchasing a product

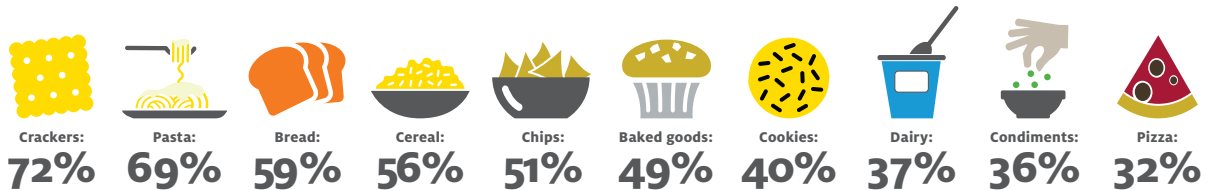
WHY THEY BUY GLUTEN-FREE



According to our study, the typical non-celiac, gluten-free consumer is an affluent, well-educated, married woman who is responsible for her household's grocery shopping. She always reads product labels before purchasing, and is focused on bringing home food she believes to be healthy and made with natural ingredients. Gluten-free products often meet these criteria, and she's willing to spend about a third of her grocery budget on gluten-free items. Because she is interested in gluten-free products for reasons other than managing celiac disease, products featuring other health claims and/or short lists of recognizable ingredients may stand out to this consumer.

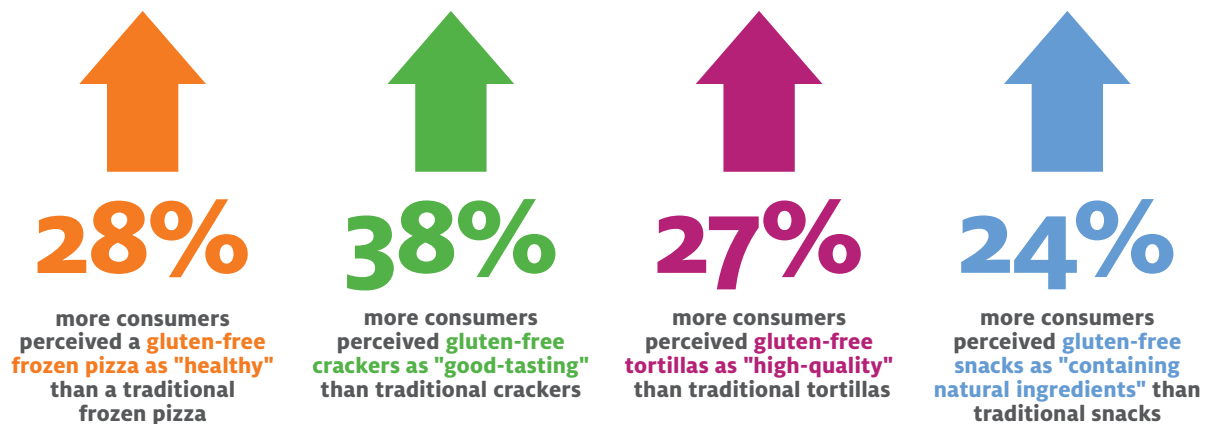
WHAT THEY'RE BUYING

Traditionally gluten-rich items are the top categories for voluntarily gluten-free buyers.



UNDERSTANDING GLUTEN-FREE APPEAL

Gluten-free claims add **positive consumer perception** ...



... and can **add value** to your products.

Gluten-free claims can significantly boost purchase intent, and can increase the amount voluntarily gluten-free consumers are willing to pay.

\$7.04

Expected price for a frozen pizza **without** a gluten-free claim

\$7.41

Expected price for a frozen pizza **with** a gluten-free claim

\$3.86

Expected price for tortillas **without** a gluten-free claim

\$4.04

Expected price for tortillas **with** a gluten-free claim

24% more consumers would be likely to purchase gluten-free than traditional crackers

19% more consumers would be likely to purchase gluten-free than traditional tortillas

Our study suggests that among non-celiac, gluten-free consumers, a gluten-free claim on the front of the package can improve consumers' perception of the product and can boost purchase intent. A gluten-free claim was also shown to increase the accepted price point, more so for products used as (or part of) an entrée (e.g., frozen pizzas, tortillas). Of course, higher prices come with higher expectations for quality, so manufacturers should pay special attention to delivering great taste and texture to help make sure gluten-free-by-choice consumers continue to choose their brands.

THE LABELS GLUTEN-FREE CONSUMERS WANT

Voluntarily gluten-free consumers are also **looking for products with “natural” ingredients**, and want to see recognized and accepted wheat substitutes on the label, including:

| | |
|------------------------|-------------------|
| Brown rice flour | Rice flour |
| Pea flour | Faba bean protein |
| Chickpea flour | Pea protein |
| Lentil flour | Corn starch |
| Cassava/tapioca flour | Potato starch |
| Whole-grain corn flour | Faba bean flour |

These five ingredients were considered the most “natural” and acceptable:

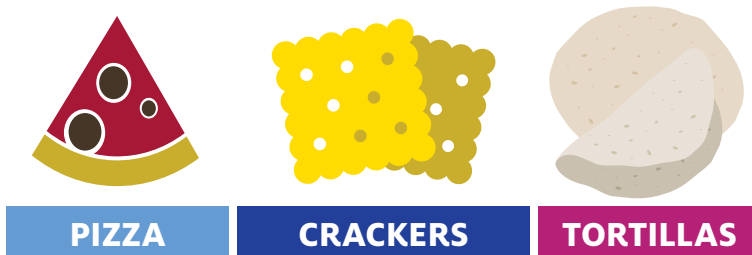


Flours are the most consumer-preferred ingredients, followed by proteins and starches. Brown rice flour, pea flour and chickpea flour are considered the most “natural” and appealing, and therefore the most acceptable wheat substitutes for voluntarily gluten-free consumers. These findings are consistent with the larger clean and simple trend.

Gluten-free claims were the most eye-catching elements of the following packages:

Gluten-free claims capture consumers’ attention

According to our research, gluten-free claims were able to “break through” other packaging elements and led to noticeable lifts in consumer perception.



SOURCES

Unless otherwise noted, all data in this brief come from Ingredient proprietary research conducted in April 2017.

1. Ingredient proprietary research, Consumer Study, 1,000 consumers, USA, April 2016

CREATE GLUTEN-FREE PRODUCTS THAT ARE FULL OF CONSUMER APPEAL

Tap into the growing market of consumers who are gluten-free by choice with foods that have the same great taste and texture as traditional products. Look to Ingredion's ingredient solutions to create gluten-free foods that entice and satisfy.

Get the performance and functionality you need with the **CLEAN LABELS voluntarily gluten-free consumers want.**

- Incorporate clean label, clean-taste **HEMECRAFT® Create 390 functional tapioca flour, HEMECRAFT® Create 860 functional rice flour** or **HEMECRAFT® Pulse flours** in instant or cook-up applications for soft, tender and moist crumbs.
- Gain functional benefits and clean label appeal when you replace bulk wheat flour with clean label **PENPURE® 60 potato extract** or **PENPURE® 37 rice starch**.

Boost your products' **NUTRITION PROFILE to better appeal to these health-conscious consumers.**

- Increase the fiber content of gluten-free foods without changing taste, appearance or processing with **HI-MAIZE® resistant starch** and **VERSAFIBE® dietary fiber**.
- **VITESSENCE™ Pulse proteins** can help you deliver in-demand protein enhancement in a range of gluten-free applications.

Give your gluten-free products the texture and **SENSORY EXPERIENCE consumers crave.**

- Replace bulk flour with **HEMECRAFT® Create GF 10 and 20 flours** or **PURITY® 87 modified food starch**, and keep the chewy or crispy textures your products are known for.
- Easily formulate with **PRECISA® Bake GF modified bulk flour system** and **PENTECH® GF** in dough systems like breads, rolls, pizzas, tortillas and flatbreads.
- Texturize with **HEMECRAFT® Express 390 tapioca flour, NOVATION® 4600 functional food starch** or **PENPLUS® 2140 modified potato starch** for instant batter or dough viscosity and cohesion, sturdier crumb cell structure, improved freeze/thaw stability and reduced water mobility.
- **TICALOID® GF formulated systems** are high-performing blends of starches and gums that can be used as bulk flour systems and/or bulk flour components. They provide soft, tender textures with good resilience, improved crumb structure, reduced grittiness, improved freeze/thaw stability and reduced moisture migration.

Answer the gluten-free trend with help from Ingredion

Innovate with us at the **27 Ingredion Idea Labs™ innovation centers** around the globe. Through science-based problem solving, you can differentiate your clean label products and get them to market faster — with greater consumer acceptance and profitability.

Innovate with HEALTH & NUTRITION
ingredion.us/glutenfree
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