



Development of Gluten-Free and Vegan Pies



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INTRODUCTION

The trend of healthy and innovative products in a myriad of stores have spread like wildfire in the past decade, and the food industry is no exception. With words like “keto,” “paleo,” “vegan” and “gluten-free” being plastered onto several products in grocery stores, the demand has gone up exponentially. Social media has adopted these types of goods, and created aesthetic feeds to show users how healthy eating can be fun. Regardless of consumer knowledge on the matter, shoppers are gaining headway on the “healthy diet lifestyle” idea.

With the introduction of products that are cultivating a healthy and “trendy” future, it has become essential for small businesses to continue innovating to keep up with larger brand names. A privately-owned company must find new ways to reach target markets that differ from the standard. Making these new products prove a challenge due to the potential of cross contamination by using the same instruments as the traditional. Integrating gluten free and vegan products on shelves has been a highlight for some businesses to keep customers going into their company over the nearest grocery store.

This project examined the author’s family-owned company, Spaans Cookie Company, located in Galt, CA. Spaans Cookies is involved in private-labeling with major food suppliers nationwide, including Sprouts, Safeway, and Nugget. While sugar-free cookie products are sold, the author chose to look into the pastry sector in the company store in Galt. Growing up allergic to dairy and gluten products, the author became interested in creating an item she could enjoy without getting sick on holidays and special occasions. Through the project the author will analyze company sales on the new product while constructing a recipe to reach the gluten-free and vegan market.

GLUTEN-FREE PIE CRUST RECIPE

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|  CORN STARCH |  ALMOND FLOUR |
|  BROWN RICE FLOUR |  PINCH OF SALT/SUGAR |
|  TAPIOCA FLOUR |  EGG |
|  BUTTER |  XANTHAN GUM |

BACKGROUND

Spaans Cookies is a family-run business that has been in the author’s family for generations, with it’s roots tracing back to Holland in 1896. Peter Spaans started the company with wheat bread, but transitioned to baked goods when he came to America in 1912. The company continued to expand through the years, going from selling a loaf of bread for 7 cents in a company truck to selling products nationwide to major companies. From Holland, to Michigan, to Modesto, and then finally settling in Galt, the generations of Spaans have continued to keep the tight-knit community they’ve strived for while providing quality products (Spaans Cookies, 2020).

Like Spaans, another local bakery also used early innovation to create a value-added product: Pushkin’s Bakery in Sacramento. Pushkin’s was at the forefront of vegan and gluten-free products before it became a popular trend. Located in a small store in Midtown Sacramento, dozens of customers wait outside the door in anticipation for its 9:00 AM opening, including many with celiac disease. Danny and Olga Turner have been serving these pastries to the growing target market for years. They started due to the lack of options for those allergic to gluten and dairy, and have hit it off with that expanding group of people (About Pushkin’s Bakery, 2020). For those who have a dietary restriction, he or she will typically be willing to pay a hefty price in order to feel included on special occasions.

While having a gluten allergy is a challenge for several people around the world, having a gluten intolerance is even more common. Allen’s study on Gluten Related Disorders show the severity of this, and is categorized as a “disorder characterized by variable intestinal and systemic symptoms reported to be caused by the ingestion of gluten-containing foods in people without celiac disease or wheat allergy” (Allen, 2015). Little research has been concluded for this topic, and the only proven way to lessen the digestive symptoms are to rid the diet of gluten products entirely. Dr. Denboer discussed in his documentary speech “The Truth About Gluten” that while only about 1% of the population have a gluten or wheat allergy, over 6% have a gluten sensitivity (Denboer, 2013). Staying on track with a diet substituting wheat is expensive and hard to keep up with, but is a harsh reality for those with Celiac Disease (a gluten allergy), or an intolerance.

It has been a heavily debated topic whether gluten-free or vegan products are healthier than the original counterpart, but research has seen some benefit for a significant portion of American adults while also helping those with an allergy. Not only does cutting out less-than-healthy items affect those who may get sick, but aids a positive lifestyle change in Americans. Chaker’s article in the Wall Street Journal gives insight into parents working towards understanding nutrition information to help their kids start with better choices. Labels like “no artificial flavors,” “vegan,” and “keto” are flooding into children’s snack foods to help solve obesity for the next generation, and it is time these words are finally understood in their entirety.

In the context of staying both vegan and gluten free as a lifestyle change, studies suggest there may be benefit. In a study conducted by the US National Library of Medicine, this diet compared to the control group resulted in a noticeable difference in Body Mass Index, cholesterol, and Low-Density Lipoprotein (Elkan, 2008). Along with this change, it also has the ability to lower calorie intake by a significant amount due to the lack of fat in dairy and carbohydrates in breaded products, making it a viable option for those with diabetes. The health comparison of non-gluten products to their original counterparts is heavily researched, but the results indicate that this lifestyle is individualized toward the person concerning the benefits.

Gluten and dairy free items aren’t for every consumer, but they are a necessity for others. This study has the potential to change important occasions for those who haven’t been able to celebrate with a cake, or who have to pass on the donuts when out with friends. Starting with just a few businesses, the trend can quickly expand and impact hundreds of thousands within the next decade. The food industry is constantly evolving, and this is another product it is time to cater toward.

METHODOLOGY

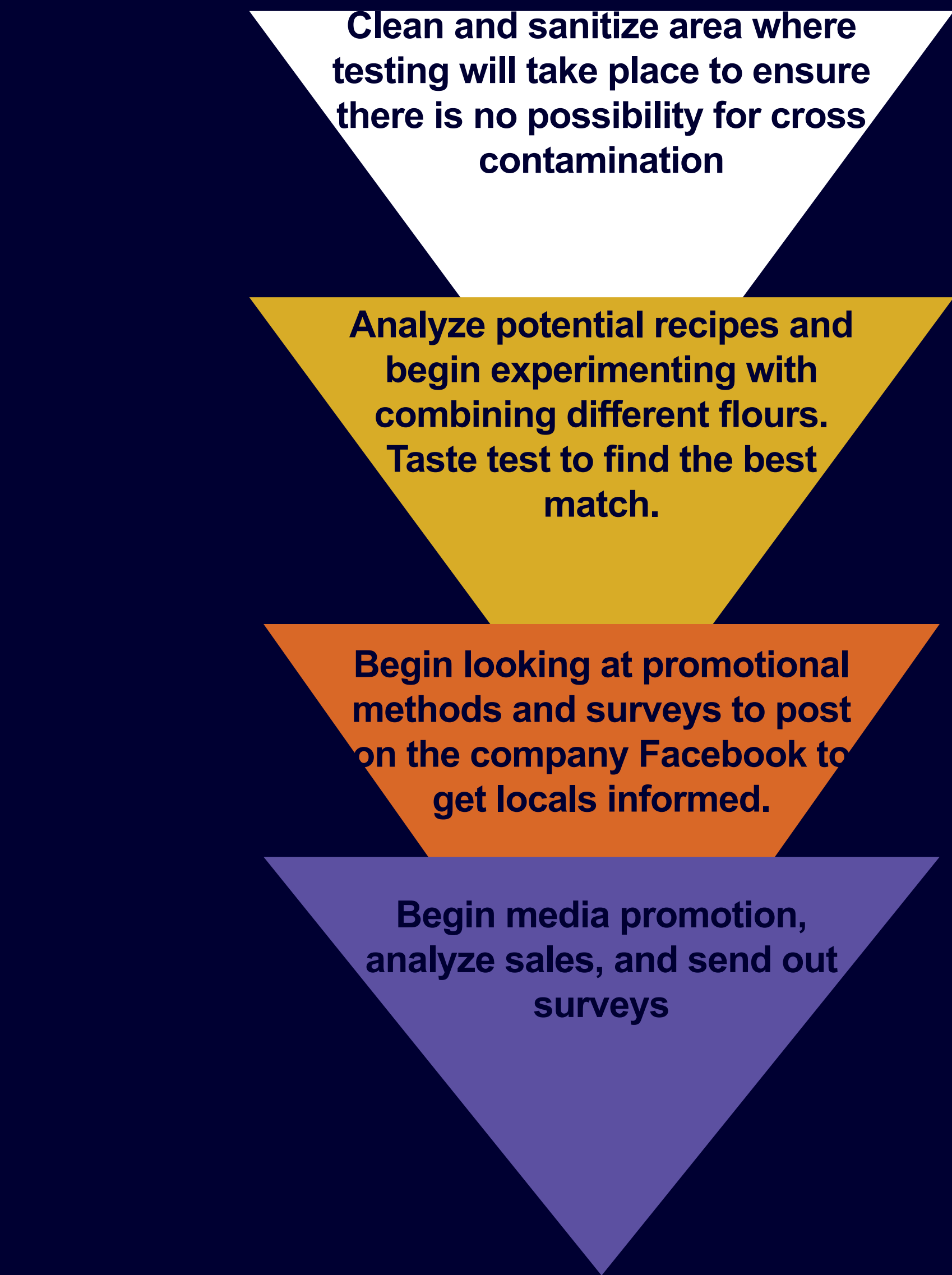
First, the researcher spent time monitoring the facility to ensure that the workspace was cleaned prior to testing. It is vital to make sure the space can be fully sanitized in order to prevent cross contamination. The next step was to get a Google form link sent out from the company Facebook. The main goal of the survey was to get feedback from community supporters as to what pastries and pie flavors they would purchase if available at the company store. This allowed the researcher to work with the employees to make recipes more specific, pushing out the flavors that would sell best.

The first step of the recipe started with the pie crust by going to local grocery stores and other gluten-free and vegan bakeries to get ideas. The student started with the recipe Spaans Cookies has for their pies currently to see what ingredients could be kept consistent to keep the price down. For the vegan pies, only the eggs, milk and butter had to be cut out to make it fully vegan, meaning the pie is free of any animal product. The author replaced these products by incorporating coconut milk to keep the taste congruent with the original. The gluten-free pie crust was a little more complex. The researcher ended the recipe search by combining cassava and almond flour to keep a good consistency that kept the integrity of the phrase “gluten-free.” An interview date was set up to talk to the company owner, Jim Spaans, and get his perspective on creating new recipes to reach a wider variety of groups. This will then be posted on the company Facebook to get the word out before holiday orders hit their peak time.

Prior to the busy holiday season, promotional strategies will be utilized on the company Facebook, and a “Sample Saturday” will be implemented in the store to give out samples to the public. After Christmas orders are closed, statistics will be taken on how many gluten-free and vegan pies were sold for the holiday. These surveys and statistics will bring more insight into how large this target market is, and if it would be cost-effective to look into different niche pastries.



SHOWN ABOVE: BLACKBERRY VEGAN PIE SAMPLE



MOVING FORWARD

The results of this project concluded with the development of gluten-free and vegan pie recipes for the Spaans Cookie Company store, with plans for promotion and surveys as the holiday season approaches. Due to COVID-19 and the stay at home order, the business decided to postpone the promotional and survey materials until a better time when production could reach full capacity. These will be administered before Thanksgiving orders are taken so we can see if Spaans should expand production in this area. Moving forward, the surveys given out over Facebook will provide insight into different types of pastries customers want gluten-free or vegan. For most pastries, the same mix of flour can be used and can be an easy process. In the future, a whole area of the bakery dedicated to gluten-free products could be created to lessen the chance of cross contamination.

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