April 2022

GrowNYC Grainstand Evaluation

CUNY URBAN FOOD POLICY INSTITUTE

In partnership with GROWNYC and the GLYNWOOD CENTER FOR REGIONAL FOOD & FARMING

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INTRODUCTION

The GrowNYC Grainstand, part of GrowNYC's Food Access and Agriculture program, operated from 2015-2021 with a mission to foster the development of a regional small grain economy in the Northeast by bridging the gap between producers and consumers in order to provide a market for new and emerging crops.

Small grains, which include wheat, barley, oats, and rye, can play an important role in farming systems. The addition of small grains to crop rotation can decrease environmental impacts through a reduction of fertilizer use, greenhouse gas emissions, and fossil fuel use.[1,2] Small, local grains may have more interesting flavor profiles and more distinct tastes than industrially-grown and processed grain[3] and the impacts of small, whole grains on the health of consumers (e.g. lowering the risk of heart disease and diabetes) make them an important component of a nutritious diet.[4]

Small grains, legumes, and seed oils, once new to regional markets, faced unique barriers to market entry, lacked an established customer base and were not served by traditional distribution models. GrowNYC Grains worked as an intermediary entity to reach and educate consumers, as well as to build market demand.

From 2015-2021 GrowNYC operated a series of retail stands at GrowNYC's Greenmarkets with Grainstands in four of the five boroughs of New York City, including the flagship Union Square Greenmarket, reaching a broad demographic of consumers. The Grainstand served as test marketer, aggregator and reseller, of regional grains, beans, and seed oils for twenty-one regional mills and processors representing crops from over 100 farms in the Northeast. The Grainstand introduced 57 new crops to the marketplace and provided consumer feedback on the development of more than 20 regionally adapted wheat varieties.

In partnership with the CUNY Urban Food Policy Institute, GrowNYC conducted an evaluation of the GrowNYC Grainstand to build understanding of client purchasing patterns, grain knowledge, and motivations for shopping at the Grainstand. The evaluation also aimed to generate insight into the market potential of organic small grains and identify barriers to market growth. The CUNY Urban Food Policy Institute has a track record of supporting community food organizations through research and evaluation and aims to improve food access programs and policies throughout NYC, NYS, and across the country.

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[1] Cornell CALS, *Small Grains,* (Field Crops, n.d.). Retrieved from https://cals.cornell.edu/field-crops/small-grains

[2] University of Minnesota, *Diversifying crop rotations improves environmental outcomes while keeping farms profitable*, (U of M News & Events, 2020). Retrieved from https://twin-cities.umn.edu/news-events/diversifying-crop-rotations-improves-environmental-outcomes-while-keeping-farms

[3] Avis E. From Ancient Grains to Modern Miracles. Food Processing: The Magazine of the Food Industry. May 8, 2022. https://www.foodprocessing.com/articles/2022/from-ancient-grains-to-modern-miracles/

[4] Satya Jonnagaladda et.al, *Putting the Whole Grain Puzzle Together: Health Benefits Associated with Whole Grains—Summary of American Society for Nutrition 2010* (Satellite Symposium, 2011). Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3078018/

METHODS

A 38-question survey was distributed to Grainstand customers and GrowNYC clients using Qualtrics, an online survey software over a period of 10 weeks during the months of October to December 2021.

Participants were recruited with the support of GrowNYC staff through GrowNYC and Grainstand social media channels and through the Grainstand listserv. Participants were included if they had previously shopped at the Grainstand.

Analysis was conducted using Microsoft Excel and Qualtrics analytics services. The survey's two open-ended questions were qualitatively analyzed using thematic analysis which grouped similar responses under one theme. Themes were quantified for frequency by hand to support inferences about the needs of survey respondents and their views on Grainstand improvements that could be implemented to better meet their needs. A separate analysis was done of participants that identified as small-scale producers to better understand the needs related to their businesses.

RESULTS

Demographics

The survey received a total of 369 survey respondents. After exclusion for non-Grainstand customers (69) and incomplete responses (98), 202 responses were included in the analysis. Most respondents identified as customers who purchased grains to prepare at home (96%) while 4% identified as small-scale producers. Many respondents self-identified as women (67%), white (64%) and more than half (59%) reported an age between 25-44 years. The sample reported relatively high incomes compared to the reported NYC median household income ($69,407 in 2019)[5], with 32% reporting an income of $100,000 or more, and almost half (47%) reporting earning more than $75,000 annually.

Shopping Habits of Respondents

Most of the survey respondents, about 91%, stated that they have shopped at the Grainstand more than once, with almost half of the respondents (41%) stated that they shop there once a month or more. The Union Square location is the most popular out of all the Greenmarket locations. Out of the 202 respondents, 128 of them (63%) preferred the Union Square Greenmarket location as their primary location, while 62 (31%) of respondents "sometimes shopped" there. The next most popular location was the Grand Army Plaza Greenmarket.

When asked about what motivates clients to shop at the Grainstand, 94% of respondents stated that supporting local agriculture and local farmers was important to them. In addition, 79% stated that knowing where their food comes from and how it is grown was important. Lastly, 81% of respondents chose quality as an important motivator for shopping at the Grainstand. When asked about how much is spent on an average trip to the Grainstand, 46% of respondents reported that they spent $11-$20 per trip, while 30% of respondents reported that they spent more than $20 per trip.

Purchases Made at The Grainstand

As seen in Figure 1 below, there are a variety of items purchased by participants with varying frequency, from

[5] U.S. Census Bureau American Community Survey, 1-year estimates, 2019.

never purchased to purchased more frequently than once per month. The most purchased of the items sold were beans: 45% of participants bought beans a few times per year, 15% purchased beans about once per month. The least purchased item across all the participants was sorghum flour or groats or approximately 86%, of them, saying that they had never bought that item.

Respondents described their motivations when purchasing grains, selecting all characteristics that fit their purchasing criteria. Most respondents (81%) prefer purchasing locally sourced products and 71% report prioritizing locally sourced products if given a choice. Further, 71% of respondents report a preference for whole-grain products. In instances when they are required to choose between local versus organic products, customers reported favoring local products over organic products (Figures 2 and 3).

Knowledge and Beliefs about Grainstand Products

More than just a retail location for purchasing grains, the Grainstand served as an important educational opportunity for customers. More than 75% of survey respondents reported "gaining knowledge" from their Grainstand interactions, and 75% indicated the knowledge they had gained from Grainstand staff had informed or influenced their grain purchases. A large majority (90%) of respondents "agreed or strongly agreed '' that they had discovered new products at the Grainstand.

Respondents demonstrated a high level of knowledge about Grainstand products, and in particular about corn products such as polenta, grits, and cornmeal. Respondents demonstrated somewhat less knowledge related to gluten-free or heritage/ancient wheat products, indicating a potential area for expanding Grainstand education materials and content emphasis.

In addition to asking questions about products sold at the Grainstand, survey participants were also asked questions regarding the benefits of grains on health and the environment. Respondents demonstrated knowledge of some of the environmental benefits of small grains, as can be seen in **Figure 4.** Moreover, respondents were asked about the health benefits of grains and had a strong understanding of most of the health benefits listed (see **Figure 5).** Overall, respondents had a good understanding of the benefits and had a higher degree of knowledge related to the health benefits when compared to the environmental impacts, meaning there are still potential areas for increasing education regarding these benefits.

Program Iteration and Scale

Respondents described products they'd like to see added to Grainstand's typical offerings. When asked what they thought the Grainstand was missing, 31% of respondents said "nothing" while others, approximately 25%, suggested that the Grainstand would benefit from offering a greater selection of beans.

Participants described what might encourage them to shop more frequently at the Grainstand. More than 25% of respondents indicated that increasing the frequency of the Grainstand at GrowNYC markets might accomplish this goal. One respondent said: "*Appearance at more markets outside of the big ones",* while another respondent stated, "*Honestly, just more frequency at my local market (or more frequency at Union Square)".* In addition to this, many respondents stated that they might shop more frequently if there was a greater variety of offerings at the Grainstand, including a greater variety of beans, flour, and gluten-free options. Other participants mentioned affordability, increased education on items and farmers, more size options, and expanding to more farmer's markets across the five boroughs. (A full list of participant responses and themes is available upon request.) Lastly, some respondents stated that if they needed more grains, they would simply purchase more ("I *bake sourdough as a hobby. If I baked more I would buy more")* while others stated that they already shopped as frequently as they needed ("*I already shop very frequently...with a reliable supply, I will buy all of my flours,... grains, and beans there").*

When asked about how the Grainstand could evolve to better meet their needs, respondents most frequently mentioned more education on items from the Grainstand, including recipes, demonstrations on how to use items, and newsletters with more information on less well-known items, with one respondent writing, "*Would love recipe examples for different grains and flours!*" while another stated, "S*amplings or demonstrations on how to cook the grain*". Other frequently mentioned ways to evolve were offering more products and more variety of current items, and more frequency at markets. This shows that there is interest in learning more about grains and how to use them along with purchasing more if the Grainstand was present more often at markets. A full list of participant responses and themes for this question is available upon request.

DISCUSSION

In conducting this evaluation, GrowNYC aimed to expand their knowledge of the motivations, habits, and needs of customers of the Grainstand, and to generate insight into the market potential of organic small grains and identify barriers to market growth.

The market potential of small grains in the Northeast was demonstrated on a small scale by Grainstand customer commitment to purchasing as much of their grain needs at the Grainstand and customer declarations that if the Grainstand were to be at more of their local markets and if the supply of grains were more consistent, they would purchase more often. Furthermore, customers stated that if they were able to know that the Grainstand would be at their local market before they got there, they would be able to plan for purchases at the stand.

Barriers to market growth include general knowledge of small grains benefits and preparation methods, even among small grains consumers. Many survey respondents demonstrated knowledge regarding the characteristics of products sold at the Grainstand, including which ones were corn-based, gluten-free in addition to having some understanding of the health and environmental benefits of grains. There remains an opportunity to increase education about small grains, particularly their importance to decreasing the environmental impacts of some farming practices. Respondents also made it clear that they knew there was a gap in their understanding of how to use some of the lesser-known products sold at the stand. Many respondents stated that the Grainstand could meet their needs further by providing more education, recipes, and demonstrations about how to use more of the grains in their own kitchens.

ANNEX A: FIGURES

When you purchase grains, how often do you purchase each product?

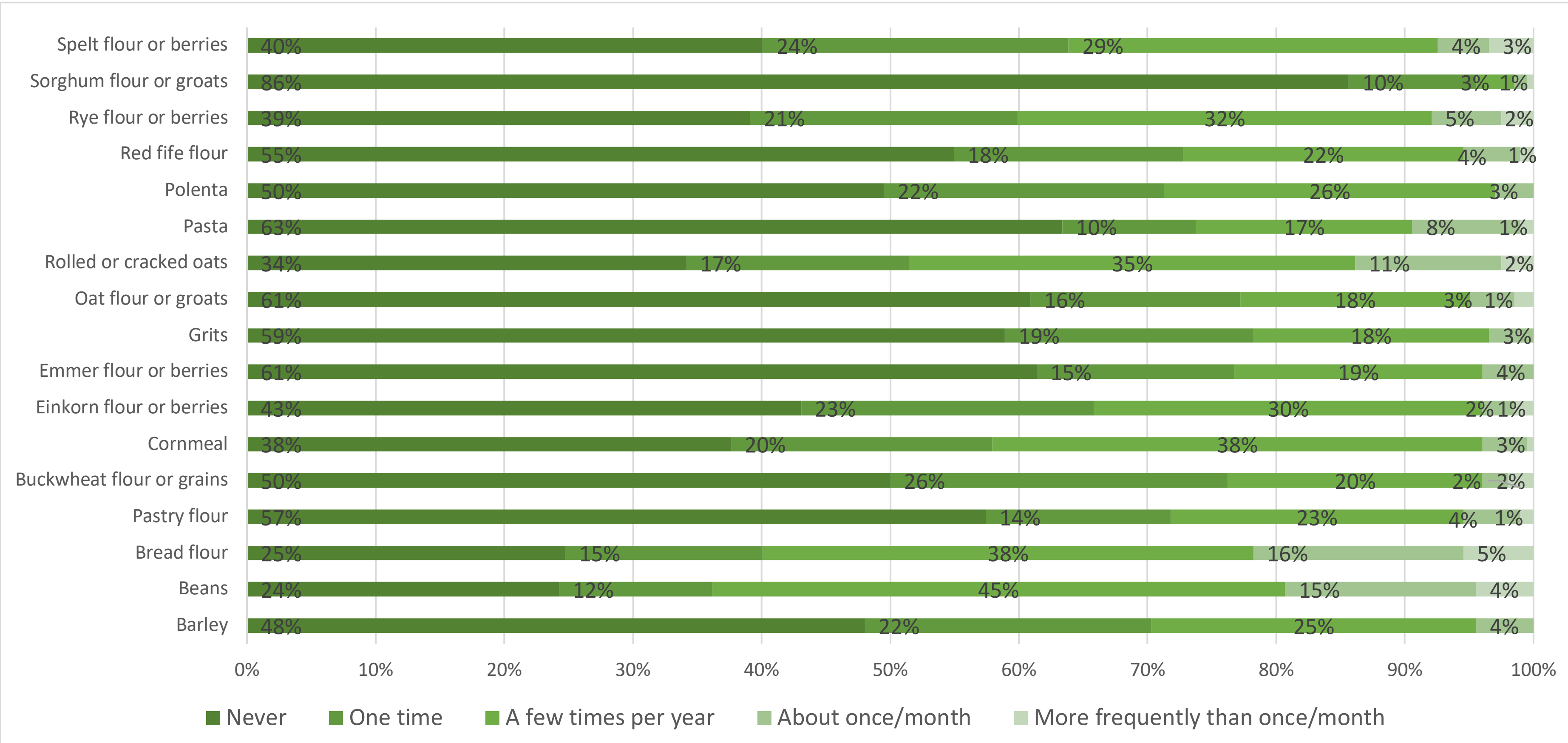

Figure 1: Frequency of Specific Grain Types Purchased, by percent.

Please tell us how much you agree with the following statements: - I prioritize purchasing an organic product over purchasing a local product.

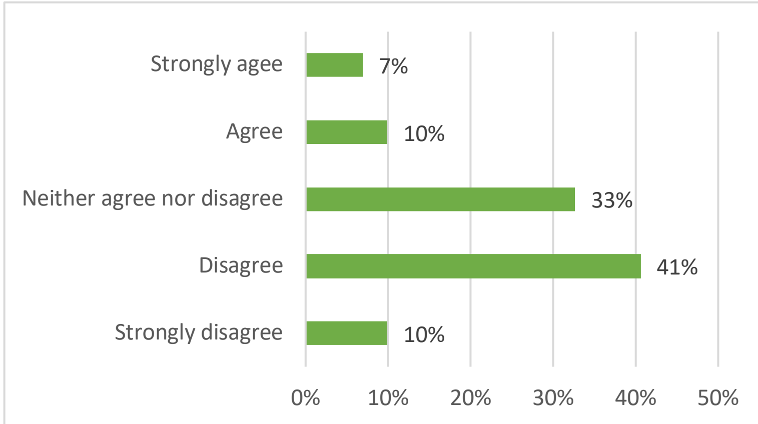

Figure 2: Graph of Customer Agreement on Prioritizing Organic Over Local Products, by percent

Please tell us how much you agree with the following statements: - I prioritize purchasing a local product over a purchasing an organic product.

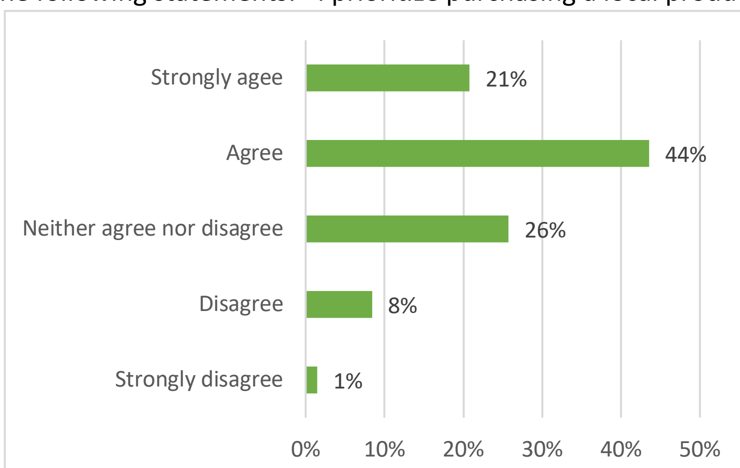

Figure 3: Graph of Customer Agreement on Prioritizing Local Over Organic Products, by percent

Which of these are positive environmental benefits of small grains? Please select all that apply.

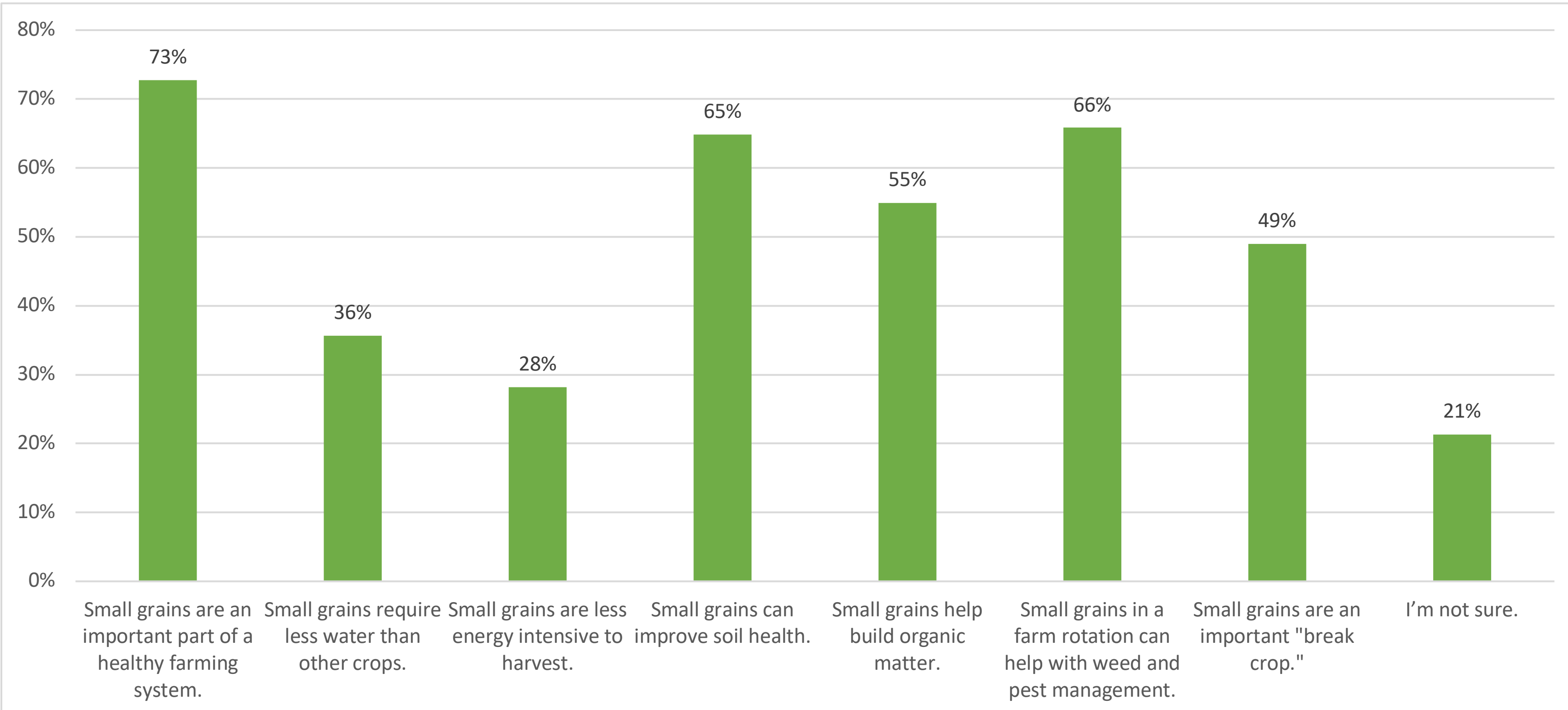

Figure 4. Customer Beliefs of Environmental Benefits of Grains, by percent

Which of these are positive health benefits of grains? Please select all that apply.

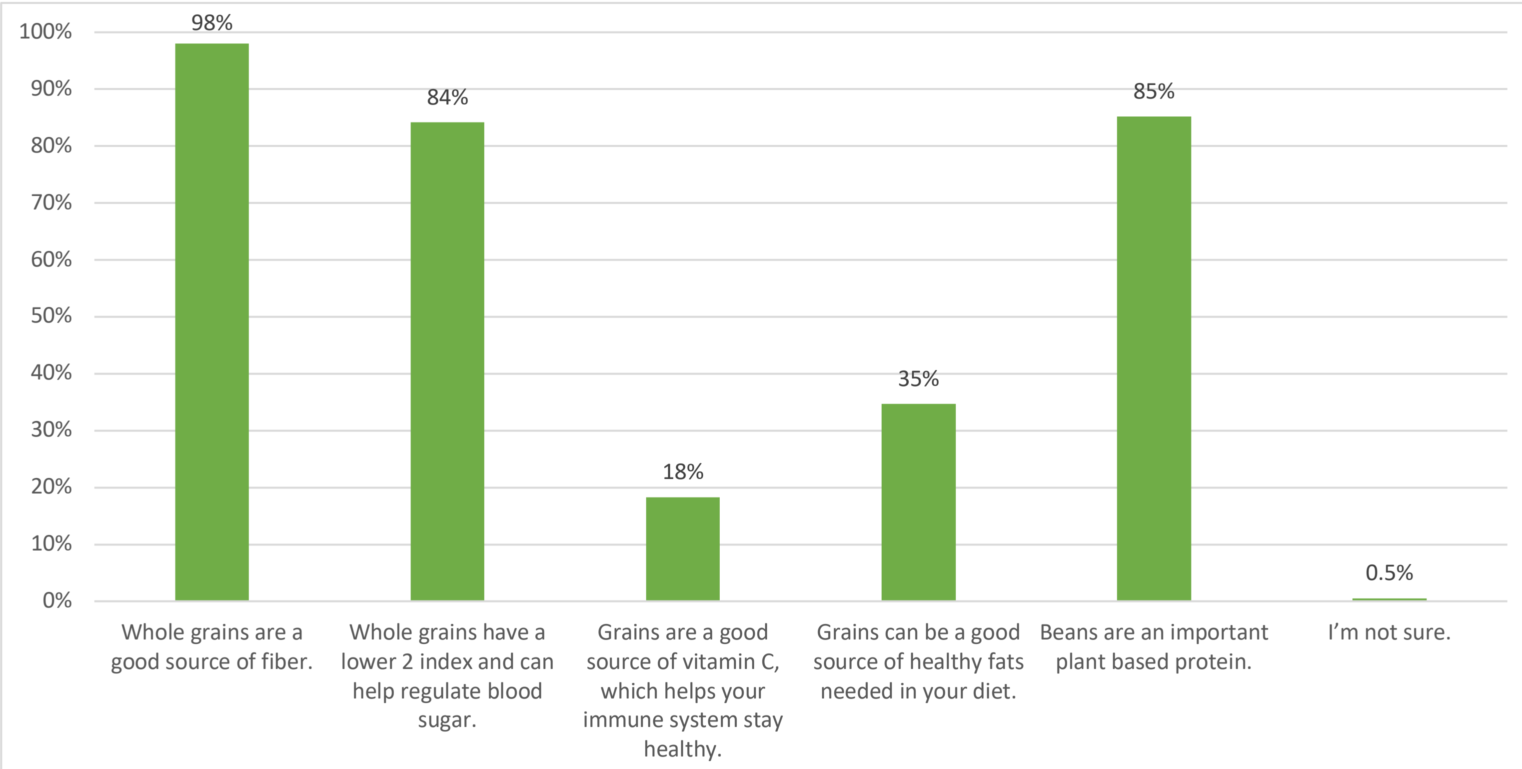

Figure 5. Customer Beliefs of Health Benefits of Grains, by percent