November 13, 2021

Jessica Fung

Owner, Glacier Greens Farms

Burnaby, BC

Dear Ms. Fung,

Glacier Greens Farms plans to start its vegetable production on December 15, 2021 and plans to begin its farm retail store on January 15, 2021.

As a new business, conducting a market study on its potential customers to determine the right product mix and pricing is essential to Glacier Greens Farms’ success in its first month of operation. The suitable packaging must also be purchased before the retail store’s opening on January 15, 2022.

This marketing and packaging research report aim to assist you in finalizing the product mix, pricing, and packaging options for Glacier Greens Farms. This report also includes other marketing recommendations based on the survey results conducted on Glacier Greens Farms’ target customers. If you have any questions about this report, please send me an email at lholdo00@student.ubc.ca.

Thank you for the opportunity to be of service to your company.

I wish you all the best in your new business venture.

Best regards,

Lea Ang Salamanca

Student, Eng 301 Technical Writing

 A Marketing Research and Comparative Packaging Report

for Glacier Greens Farms

Prepared for

Jessica Fung

South Burnaby, BC

by

Lea Ang Salamanca

Technical Writing Student, English 301

October 13, 2021

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**INFORMATIVE ABSTRACT**

Glacier Greens Farms is planning to set up its first hydroponic farm at Blueridge Elementary School in North Vancouver. The vegetable production date is on December 15, 2021, and the farm wants to open for retail on January 15, 2022. The company is currently relying on its product mix and pricing based on the recommendations of the farm manufacturer located outside Canada. The farm also has not looked at packaging options for its products and has no information about the cost of packaging for its retail store.

Market research of the farm’s potential customers and competitors was conducted, and the results are used to make recommendations about product mix and pricing. Based on this report, Glacier Greens Farm’s top six vegetable products to produce are lettuce, kale, spinach, bok choy and arugula. The study about the farm’s competitor’s prices reveals that the manufacturer’s pricing recommendations are competitive, and the farm has room to increase the basil price.

The packaging report reveals that disposable plastic bags are the most cost-effective packaging material to use in the farm store.

**INTRODUCTION**

**Background of Glacier Greens Farms**

Glacier Greens Farms (GGF) is an urban hydroponic farm established by pediatric occupational therapist Jessica Fung. Ms. Fung has been assisting neurodiverse children for seventeen years and noticed that most capable neurodiverse children grew up having difficulties getting and keeping employment as adults. In 2017 Ms. Fung started working on GGF to educate, prepare and employ neurodiverse individuals. It plans to start growing vegetables in a forty-foot containerized hydroponic facility in its first location in Blueridge Elementary, School District 44 in North Vancouver. GGF intends to begin production in December 2021 and plans to sell its products by January 15, 2022.

**Statement of the Problem**

Jessica Fung is currently busy working as an occupational therapist and setting up Glacier Greens Farms as a new business owner. The product mix, price, and retail plans that GGF are based on the suggestions of the manufacturer of the hydroponic farm, which is not based in Canada. Following the manufacturer’s advice, GGF plans to produce 3000 heads of butterhead lettuce, tatsoi and kale, and 120 pounds of arugula, basil, and radish on December 15, 2021. The price recommendations of the manufacturer are as follows:

Butterhead lettuce $3.50/head

Tatsoi $3.50/head

Kale $3.50/bunch

Arugula $3.31/100 grams

Basil $3.96/100 grams

Radish $3.50/pound

Currently, the farm does not have any information about packaging materials for its farm store.

GGF also has not explored other sales channels except for direct-to-consumer retail. Although GGF has good information about its target customers, it currently does not have any marketing or advertising plans.

**Need**

Although the hydroponic farm manufacturer has product mix and pricing suggestions for its farm owners, it will benefit Glacier Greens farms to conduct its marketing and packaging research within its geographic area.

**Purpose of this report**

The objectives of this report are :

* To determine GGF’s potential customer’s vegetable buying preferences and habits will help GGF determine the right product mix when it starts production on December 15, 2021.
* Assist in setting the price of the farm’s produce when it opens for retail on January 15, 2021.
* Find other sales channels other than retail sales to maximize revenue.
* Identify GGF’s target customers that will guide the company’s future marketing and advertising strategies.
* Present different packaging options for the company’s products and determine the initial packaging costs GGF needs to allocate for packaging.

**Brief description of data sources**

To determine GGF’s potential customer’s vegetable purchasing preferences, primary data will be collected via an online survey targeted to GGF’s potential customers who reside within the Blueridge neighbourhood in North Vancouver. Attached is the link to the survey questions being used to gather data for this report: <https://ubc.ca1.qualtrics.com/jfe/form/SV_4NhZi4y4MApgLQO>. Prices of butterhead lettuce, tats, kale, arugula, basil, and radish from Real Canadian Superstore and Whole Foods Market in North Vancouver will be gathered to make recommendations regarding product pricing. Primary data collection on vegetable packaging products and pricing will be collected through direct contact of packaging manufacturers through emails and phone.

To assist in making marketing recommendations and suggest other sales channels, secondary sources such as agricultural industry reports and information from Statistics Canada will be utilized.

**Scope of this report**

This report will include comparing the pricing recommended by the hydroponic farm manufacturer and comparing these prices with two grocery stores near Blueridge Elementary School, identifying the types of vegetables customers prefer to buy, determining customer price preferences through surveys, and researching packaging products and pricing. Recommendations about vegetable pricing, product mix, identifying sales channels and packaging will be based on the marketing data gathered for this report.

**MARKETING ANALYSIS DATA SECTION**

**Description of Market Demographics**

Statistics Canada provides good information about the demographic profile of the residents in the Blueridge neighbourhood in North Vancouver. GGF will use this information to discover its target customer’s vegetable purchasing preferences, influencing the farm’s product mix, pricing, and sales channels.

**Residents demographic profile:**

Geographics:

* The immediate target area is the neighbourhood around School District 44 in North Vancouver, specifically in the Blueridge school catchment.
* The total target population is 2200 (Statistics Canada).

Demographics (Statistics Canada, 2019):

* + - Median Age: 44.2 years
		- 86% are married couples
		- 56% are families with kids
		- 90% speak English only
		- 26% have an annual household income of $100,000 or less, and 75% of the population has an annual household income of above $100,000.

**Studies of Potential Customers Preferences**

*Participants and Methodology*

The selected participants for the survey are people who reside within or near Blueridge Elementary School, the first planned site for GGF’s hydroponic farm. Surveys were conducted at 3.00 pm at the school playground for three consecutive school days. To speed up the data collection process, the Qualtrics in-person survey was used.

*Market Survey*

The survey consists of ten questions. To help identify the ideal age range to target GGF’s marketing efforts, question 1 divided the participants into age categories. Question 2, 3, 4, 5, 6, and 7 are used to identify the best product mix and the customer’s buying preferences. Questions 8, 9 and 10 help identify the customer’s knowledge about hydroponic farming. The complete survey is listed can be found in the Appendix

*Interpretation of data*

The top six preferred vegetables of the respondents are lettuce (20.16%), spinach (18.6%), kale (15.5%), basil (10.47%), bok choy (8.53%), and arugula (8.14%).

The average amount of vegetables the respondents eat in a day is between 3-4 servings and can be expected to consume about 2 pounds of salad greens per week.

Among the 51 respondents, 38% of the vegetables purchased are conventional, 28.32% are organic, 23.89% are canned or frozen, and 9.73% are hydroponically grown.

Of the 51 respondents, 80% purchase their groceries from the grocery store.

49% of the respondents prefer to buy locally grown produce, 41% do not prefer to buy locally grown produce, and 9% responded maybe.

Of the 51 participants surveyed, 58.2% of the respondents are willing to pay the same for locally grown produce, while 40% are willing to pay more. However, in the 40-49 and 50-59 categories, a higher percentage of the respondents are willing to pay more for locally grown produce.

Table 1 analyzes the responses to age categories and willingness to pay more, less, or the same for locally grown produce which provides information on the potential target customers of Glacier Greens Farms.

**TABLE 1: Question 1 and Question 6**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | Q1. Which category below includes your age? |  |
|  |  | **Total** | under 18 | 18-20 | 21-29 | 30-39 | 40-49 | 50-59 | 60 and above |
| Q9. Would you be willing to pay more, less or the same for locally grown produce? | I am willing to pay MORE | 40.0% | 0.0% | 0.0% | 18.2% | 33.3% | 53.8% | 55.6% | 41.7% |
| I am willing to pay the SAME | 58.2% | 0.0% | 100.0% | 81.8% | 66.7% | 38.5% | 44.4% | 58.3% |
| I will buy it if it cost LESS | 1.8% | 0.0% | 0.0% | 0.0% | 0.0% | 7.7% | 0.0% | 0.0% |

Table 2 analyzes the participants’ age categories and preference to buy locally grown produce. This analysis shows that participants in the 40-49, 50-59, and 60 and above show a higher preference for locally grown produce.

**TABLE 2: Question 1 and Question 5**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | Q1. Which category below includes your age? |  |  |  |  |  |
|  |  | **Total** | under 18 | 18-20 | 21-29 | 30-39 | 40-49 | 50-59 | 60 and above |
|  |  |  |  |  |  |  |  |  |  |
| Q8. Would you prefer to buy locally grown produce? | Yes | 49.1% | 0.0% | 0.0% | 18.2% | 33.3% | 76.9% | 55.6% | 58.3% |
|  | No | 41.8% | 0.0% | 100.0% | 63.6% | 66.7% | 23.1% | 22.2% | 33.3% |
|  | Maybe | 9.1% | 0.0% | 0.0% | 18.2% | 0.0% | 0.0% | 22.2% | 8.3% |

Of the 51 respondents, 67% know about hydroponic farming.

43.64% of the respondents are willing to buy hydroponic produce, 13% will not purchase hydroponic produce, 43.64% are eager to purchase hydroponic produce depending on the price.

47.27% of the respondents said they are willing to buy hydroponically grown vegetables in their school district, 31% responded maybe, and 21.82% responded that they are not buying them at Blueridge Elementary School.

**Studies of Competition**

*Overview of competitors*

There are several supermarkets nearby Blueridge Elementary School, Nester’s, Safeway, Save-on-Foods, Stongs, Whole Foods and Real Canadian Superstore. Some of these stores offer online deliveries. Glacier Greens Farms plans to produce butterhead lettuce, tatsoi, kale, arugula, basil, and radish. Prices of these vegetables from Whole Foods and Real Canadian Superstore located in North Vancouver are collected to capture the higher and lower ends of the market and compare these prices to the prices of vegetables of Glacier Greens Farms.

*Observational data collection*

**TABLE 3: Vegetable prices of lettuce, kale, tatsoi, arugula, basil and radish**

|  | Real Canadian Superstore | Whole Foods | Glacier Greens Farms |
| --- | --- | --- | --- |
| Lettuce (head) | 3.50/head | 3.49/head | 3.50/head |
| Kale | 1.99/bunch | 3.49/bunch | 3.50/head |
| Tatsoi | Not available | Not available | 3.50/pound |
| Arugula | 3.51/100 grams | 2.80/100 grams | 3.31/100 grams |
| Basil  | 8.89/100 grams | 8.89/100 grams | 3.96/100 grams |
| Radish | 2.50/pound | 2.39/pound | 3.50/pound |

*Interpretation of data*

The data shows that the prices of Glacier Greens Farms are competitive. There is room for GGF to increase the price of basil to increase the farm’s revenue. There is not much difference in the prices of vegetables from Real Canadian Superstore and Whole Foods.

**MARKETING ANALYSIS CONCLUSION**

**Summary of Key Findings**

* The participants prefer the top six vegetables: lettuce, kale, spinach, basil, bok choy and arugula.
* Each participant is estimated to consume 2 pounds of salad greens per week.
* The age categories willing to pay more for locally grown produce are 40-49, 50-59 and 60 and above.
* 80% of the respondents purchase their vegetables from grocery stores.
* The majority of respondents indicated their willingness to purchase hydroponically grown vegetables from the farm located in Blueridge Elementary School.
* The current pricing plan of Glacier Greens Farms seems to be competitive. GGF’s price for basil can still be increased to match the basil prices of Real Canadian Superstore and Whole Foods

**Recommendations**

The current plan of Glacier Greens Farms is to produce 3000 heads of butterhead lettuce, tatsoi and kale, and 120 pounds of arugula, basil, and radish. Based on this report, it will be more beneficial for the company to grow bok choy instead of tatsoi and grow spinach instead of radish.

Glacier Greens Farms’ vegetable prices are competitive with Real Canadian Superstore and Whole Foods. GGF’s basil price is significantly lower at $3.96/100 grams than $8.89/100 grams Real Canadian Superstore and Whole Foods. GGF can use the lower price for basil to attract customers at its farm location or increase the price to match its competitors

Creating a marketing campaign that focuses on 40-49, 50-59 and 60 and above age categories will result in higher revenue because they are willing to pay more for local produce.

Although 47% of the participants are willing to purchase hydroponically grown produce, 31% of those surveyed responded maybe. A marketing campaign in the Blueridge neighbourhood that focuses on the advantages of hydroponics as a farming method such as less water consumption, reduced exposure to food-borne pathogens, and reduced carbon footprint may entice more residents to purchase hydroponically grown produce.

Based on the average consumption of vegetables per week, the target population’s consumption in the Blueridge neighbourhood is estimated at over 4,000 pounds per week. Glacier Greens Farms only plans to produce around 240 pounds of vegetables. The results also indicate that 47% of people who live around Blueridge Elementary are willing to purchase vegetables from the hydroponic farm. These results show that Glacier Greens Farms may sell all the vegetables that it plans to produce every month.

This study revealed that although lettuce is the most popular vegetable, the price of lettuce has less elasticity because of tight competition from popular supermarkets such as Real Canadian Superstore and Whole Foods. There is more room to increase the price of basil by $4.00/100 grams. It is recommended that GGF study the sales and marketing potential of basil to consumers or restaurants.

**Limitations and further research**

The marketing research was conducted in the playground of Blueridge Elementary School after school hours. Most respondents were parents or grandparents of school-aged children. Further research that targets other residents will help analyze the neighbourhood’s vegetable buying preferences.

**PACKAGING ANALYSIS REPORT**

**Methodology**

An online search for local packaging suppliers was conducted. The packaging companies were contacted through email or phone to obtain pricing and product specifications. Packaging and pricing information were obtained from Uline, 4imprint Canada, Evocative Design and Better Farm Company. There was no applicable packaging product for Glacier Greens Farms from Evocative Design and Better Farm Company. The relevant product packaging information from 4imprint Canada and Uline Canada are included in the findings section.

**Findings**

**TABLE 4: Packaging information and cost**

|  |  |  |  |
| --- | --- | --- | --- |
| **Supplier** | **Product** | **Cost per unit** | **Total Cost** |
| **Reusable bags** |  |  |  |
| **4imprint Canada** | Reusable bags \*minimum quantity 250 units for every order  | 1.45/unit  | 362.50 |
|  | Set-up charge |  | 55.00 |
|  | **Total initial cash outlay for reusable bags**  |  | **417.50** |
|  |  |  |  |
|  | 2-inch round diameter logo stickers \*minimum quantity 2080 units for every order | 0.75/unit | **1563.00** |
|  |  |  |
| **Disposable bags** |  |  |  |
| **Uline Canada** | standard produce bags \*minimum order 3000 units | 0.027/unit | 81.00 |
|  | high density plain t-shirt bags S-7628 \*minimum order 1000 units | 0.041/unit | 41.00 |
|  | **Total initial cash outlay for disposable bags** |  | **122.00** |

**Recommendations**

The most cost-effective packaging material is the standard produce bags and high-density plain t-shirt bags. Based on vegetable packaging prices and Glacier Greens Farm's low marketing budget, GGF can encourage its customers to bring their reusable bags and only use the disposable bags when requested by the customers.

**APPENDIX**

**Survey Questions:**

1. Which category below includes your age?

|  |  |  |
| --- | --- | --- |
|  a. under 18 | d. 30-39  | g. 60 and above |
|  b. 18-20 | e. 40-49 |  |
|  c. 21-29 | f. 50-59 |  |

(2) How many servings of produce do you eat on a typical day? 1 serving cooked = 1/2 cup; 1 serving raw= 1 cup

|  |  |
| --- | --- |
|  a. 0 | e. 4-5 |
|  b. 1-2 | f. 5-6 |
|  c. 2-3 | g. 6+ |
|  d. 3-4 |  |

(3) Where do you obtain the majority of your produce?

 a. Grocery Store

 b. Farmer’s market

 c. Others

(4) Which type of vegetables do you buy often? Click all those that apply.

|  |  |  |
| --- | --- | --- |
| a. Lettuce | e. Radicchio | i. Tatsui |
| b. Kale | f. Basil | j. Sage |
| c. Spinach | g. Bok Choy |  |
| d. Arugula | h. Chives |  |

(5) Would you prefer to buy locally grown produce?

 a. Yes

 b. No

 c. Maybe

(6) Would you be willing to pay more, less or the same for locally grown produce?

 a. I am willing to pay MORE

 b. I am willing to pay the SAME

 c. I will buy it if cost LESS

(7) Which following types of produce do you buy often? Click all that applies

 a. Conventional (Standard)

 b. Organic

 c. Canned or Frozen

 d. Hydroponically grown

(8) Do you know what hydroponics is?

 a. Yes

 b. No

(9) Would you buy hydroponically grown produce?

 a. Yes

 b. No

 c. Depends on the price

(10). Will you buy fresh vegetables for a hydroponic farm, if there is one within your school district?

 a. Yes

 b. Maybe

 c. No

**Packaging List of Suppliers:**

**4imprint Canada**

Website: <https://www.4imprint.ca>

Phone number: 1-800-300-1336

**Uline**

Website: <https://www.uline.ca>

Phone number: 1-800-295-5510

**WORKS CITED LIST**

Government of Canada, Statistics Canada. “Population and Demography Statistics.” *Government of Canada, Statistics Canada*, 12 Oct. 2021, https://www.statcan.gc.ca/en/subjects-start/population\_and\_demography.