

November 26, 2021

Jessica Fung
Owner, Glacier Greens Farm
Burnaby, BC

Dear Ms. Fung,

As a new business, conducting a market study on your farm's potential customers to determine the right product mix and pricing is essential to Glacier Greens Farm's success in its first month of operation. Determining the customer's needs by selling the right product at competitive prices leads to higher sales. Also, researching and buying packaging materials before the farm's opening results in an organized opening day and contributes to a lower cost of operations.

This marketing and packaging research report aims to assist you in finalizing the best product mix, setting competitive prices, and choosing a cost-effective packaging option for Glacier Greens Farm that will maximize the farm's revenue potential. 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 Farm

Prepared for
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by
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Table of Contents

	Page
INFORMATIVE ABSTRACT.....	3
INTRODUCTION.....	4
Statement of the Problem.....	4
Need.....	4
Purpose of this report.....	5
Brief description of data sources.....	5
Scope of this report.....	6
MARKETING ANALYSIS DATA SECTION.....	6
Description of Market Demographics.....	6
Studies of Potential Customers Preferences.....	7
Participants and Methodology.....	7
Market Survey.....	7
Interpretation of data.....	7
Studies of Competition.....	10
Overview of competitors.....	10
Observational data collection.....	11
Interpretation of data.....	11
MARKETING ANALYSIS CONCLUSION	11
Summary of Key Findings.....	11
Recommendations.....	12
Limitations and further research.....	12
PACKAGING ANALYSIS REPORT.....	13
Methodology.....	13
Findings.....	14
Recommendations.....	14
APPENDIX.....	15
WORKS CITED LIST.....	16

INFORMATIVE ABSTRACT

Glacier Greens Farm plans to set up its first hydroponic farm at Blueridge Elementary School in North Vancouver. The vegetable production date is on December 15, 2022, and it intends to open for retail on January 15, 2022. The company is currently relying on the product mix and pricing based on the recommendations of the farm manufacturer located outside Canada. Also, the company needs assistance in securing cost-effective packaging supplies for its farm store before the planned opening day.

A marketing research analysis and comparative packaging research was conducted to assist Glacier Greens Farms in making product mix, pricing, and packaging decisions based on local information. Determining the needs of the farm's local customers, setting the right price and making packaging decisions based on local information will maximize revenue and reduce costs.

This report finds that the top six vegetable products to produce to maximize the farm's sales are lettuce, kale, spinach, basil, 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. Disposable plastic bags are the most cost-effective packaging material to use in the farm store.

INTRODUCTION

Statement of the Problem

The product mix, price, and retail plans that Glacier Greens Farm (GGF) are based on the suggestions of the manufacturer of the hydroponic farm, which is based in the United States. 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.

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. Discovering the needs of the farm's potential customers, comparing the farm's prices against its local competitors and securing local suppliers will help the company maximize its revenue potential and reduce its marketing and packaging costs.

Purpose of this report

The objectives of this report are :

- Determine GGF's potential customer's vegetable buying preferences and habits, which will help GGF create 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.
- 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 recommend the most cost-effective packaging for the farm.

Brief description of data sources

This research will collect primary data to determine GGF's potential customers' vegetable purchasing preferences within the Blueridge neighbourhood in North Vancouver via an online survey. 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 are collected through direct contact of packaging manufacturers through emails and phone.

To assist in making marketing recommendations, 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 Real Canadian Superstore and Whole Foods in North Vancouver. A survey targeting the residents within the Blueridge neighbourhood will assist in identifying the types of vegetables customers prefer to buy and determine customer price preferences. Collecting pricing and packaging information from local packaging suppliers will provide the most cost-effective packaging solution for GGF. Recommendations about vegetable pricing, product mix, and packaging will be based on this report's marketing data and packaging information.

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.

Geographics:

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

Demographics (Statistics Canada, 2019):

- Median Age: 44.2 years
- Eight-six percent are married couples
- Fifty-six percent are families with kids

- Ninety percent speak English only
- Twenty-six percent 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 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. Using the Qualtrics survey software made the process fast and efficient.

Market Survey

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

Interpretation of data

- The top six vegetables 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.

- Among the 51 respondents, 38% of the vegetables the participant's purchase are conventionally grown, 28.32% organic, 23.89% canned or frozen, and 9.73% hydroponically grown.
- Of the 51 respondents, 80% purchase their groceries from the grocery store.
- Forty-nine percent of the respondents prefer to buy locally grown produce, 41% do not prefer to buy locally grown produce, and 9% responded maybe.
- Fifty-eight percent of the respondents are willing to pay the same for locally grown produce, while 40% are willing to pay more.
- Of the 51 respondents, 67% know about hydroponic farming.
- Forty-three percent of the respondents are willing to buy hydroponic produce, 13% will not purchase hydroponic produce, 43.64% are eager to buy hydroponic produce depending on the price.
- Forty-seven percent 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.

Table 1 is a cross-analysis of age categories and willingness to pay more, less, or the same for locally grown produce. Age categories from 40-49 and 50-59 are willing to pay more for locally grown produce.

TABLE 1: Age categories and willingness to pay more, less or the same for locally grown produce

		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: Age and preference to buy locally grown produce

		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%

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 Farm.

Observational data collection

TABLE 3: Vegetable prices of lettuce, kale, tatsoi, arugula, basil and radish in Real Canadian Superstore, Whole Foods, and Glacier Greens Farm

	Real Canadian Superstore	Whole Foods	Glacier Greens Farm
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 Farm 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.
- The current pricing plan of Glacier Greens Farms is competitive.
- GGF's basil price is significantly lower at \$3.96/100 grams compared to \$8.89/100 grams at Real Canadian Superstore and Whole Foods.

- The age categories of people who prefer to purchase locally grown produce and willing to pay more for locally grown produce are 40-49, 50-59 and 60 and above.
- The majority of respondents indicated their willingness to purchase hydroponically grown vegetables from the farm located in Blueridge Elementary School.

Recommendations

Product Mix and Pricing

- Growing bok choy instead of tatsoi and spinach instead of radish will increase the farm's sales.
- Keeping the manufacturer's pricing recommendations as these prices are comparable with surrounding supermarkets around Blueridge.
- There is room to increase the price of basil up to \$4.00/100 grams.

Other Marketing Recommendations

- Investing on a marketing campaign that focuses on 40-49, 50-59 and 60 and above age categories will give the best returns on marketing investment.
- Designing an education-based 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 will entice more residents to purchase hydroponically grown produce.

Limitations and further research

The marketing research was conducted in the playground of Blueridge Elementary School after school hours. Most respondents are 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)

(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.