



freshspire®

**Mona Amin
Innovate HER Challenge Greenville, NC
Business Plan
December 2015**

info@getfreshspired.com | 704-654-2653 | www.getfreshspired.com | 508 Sherwood Forest Place, Cary, NC 27519

Table of Contents

Executive Summary	2
Business Mission and Vision	2
Business Description	3
Market Analysis	4
Description of Products & Services	6
Organization & Management	7
Marketing & Sales Strategy	10
Financials	13

Executive Summary

FreshSpire is the first mobile app that connects customers in real-time to local grocery markdowns. Its multi-faceted system is designed to increase communication between grocery stores and consumers to ultimately discourage food waste and encourage customers to purchase healthier produce at affordable prices. The idea for FreshSpire originated from a problem in food wastage we noticed in our surrounding community. In the next decade, North Carolina is set to exhaust all of its remaining landfill space. What is more, US grocery stores throw out approximately \$2300 per day in expired food. This food is then transferred to landfills, where it makes up an estimated twenty percent of all landfill methane emissions. This can have severe environmental ramifications given methane's potency as a greenhouse gas.

On the flip side of this, 20% of families within our state of North Carolina are food insecure-lacking access to nutritious foods. Additionally, global food producers yield enough food to feed ten billion people. This means that hunger is due to poverty and inequality, not scarcity. Clearly there is an incredible gap in effective food distribution, a gap we are hoping to shrink by targeting food wastage at the source. This is where the idea for FreshSpire found its roots - in the company's collective attempt to effectively minimize food wastage and food insecurity in a way that engages both grocers and consumers in our surrounding communities.

Business Mission and Vision

Mission Statement

FreshSpire's mission is to reduce food waste by connecting time-sensitive deals with customers in real-time on a local level.

Company Goals and Objectives

The main goal of FreshSpire is to liquidate perishable food waste from grocery stores and households and make healthier foods more available to individuals of all socioeconomic statuses. Thus, the company aims to increase food security and decrease food waste. FreshSpire looks to be a leader in easy to use, accessible mobile applications.

Business Philosophy

FreshSpire is a fresh, forward-thinking, and community oriented social business that keeps the Earth and the wellness of people as its top priorities.

Business Description

FreshSpire is an S-corporation that was formed during June 2014. The mobile application is effective, consumer friendly, and functions as a notification system for consumers, informing them of discounted foods nearing their self-life at their local grocery stores. This is accomplished by a mobile text notification system and a mobile application that provides users with a newsfeed of grocery store discounts. FreshSpire also offers customers a calendar they can update with the expiration dates of the perishable goods within their homes. Overall, FreshSpire promotes availability of nutritious produce to customers tracking their budget, diminishes the amount of food destined for landfills, and minimizes the profit that is consequently lost by grocers when fresh food inventories are not sold before expiration.

Within large grocery chains, employees scan through all produce, meat, bread, and other fresh perishable foods to mark down soon expiring items in order to preserve sales. However, even though these markdowns occur approximately twice daily, the average customer is not aware of such deals unless they happen to walk in that day. Advertising mechanisms - such as flyers - are only effective for weekly deals; therefore, a quicker, inexpensive method of letting consumers know about such deals is necessary. This tech-savvy approach will be able to attract customers to a local store in the network, encourage them to buy fresh fruits and vegetables, and reduce the amount of expired food the store is forced to dispose of.

Through effective back end integrations, mark downs on near expiring foods will be instantly updated on the mobile application newsfeed twice daily. The notifications will be pre-set to be sent out at certain times so that customers will be notified to stop by the store while running their errands or while they are on the way back from work- right in time for dinner. This will enable families to purchase nutritious foods and in effect, fuel their children's excellent academic performance in school. Through the use of iBeacon tracking technologies, FreshSpire will be able to record valuable consumer demographics; allowing grocers to get better insights on inventory management. FreshSpire will be licensed to stores at a cost of \$500 a month, depending on the size and needs of the grocery store. This amount is merely a fraction of the cost for weekly advertisements on paper.

After FreshSpire has a partnership in place, the company will appeal to shoppers of the grocery store by using flyers and banners in the store, pairing with currently existing grocery rewards programs, and utilizing the network effect. FreshSpire is unique in that it is able to serve both smartphone and non-smartphone users, through either news feed or simple text messages. Smartphone users will be able to download the FreshSpire application from their respective app stores. Through this application, users will have the ability to present store and food type preferences so that they are not bombarded with notifications. In addition, this application includes a calendar that allows consumers to keep track of the expiration dates of any foods they buy and receive reminders of approaching expiration dates. This will reduce fiscal waste on the household level.

As another segment of the research and development stage, the team designed a social network portal through Facebook in Durham, NC to gauge interest in discount notifications for foods nearing their shelf lives. The page was updated by pictures of the marked down foods at a local Harris Teeter. Whenever a customer using the page bought one of the discounted items that were advertised, he/she liked the picture. Through this, FreshSpire was able to gather data on people in the community that find this service beneficial. FreshSpire has also worked with Umbrella Market in Greenville NC to implement a text notification system as a second pilot program. Application mock-ups have been completed and development is underway. More information and to sign up to receive updates on progress, anyone can visit www.getfreshspired.com.

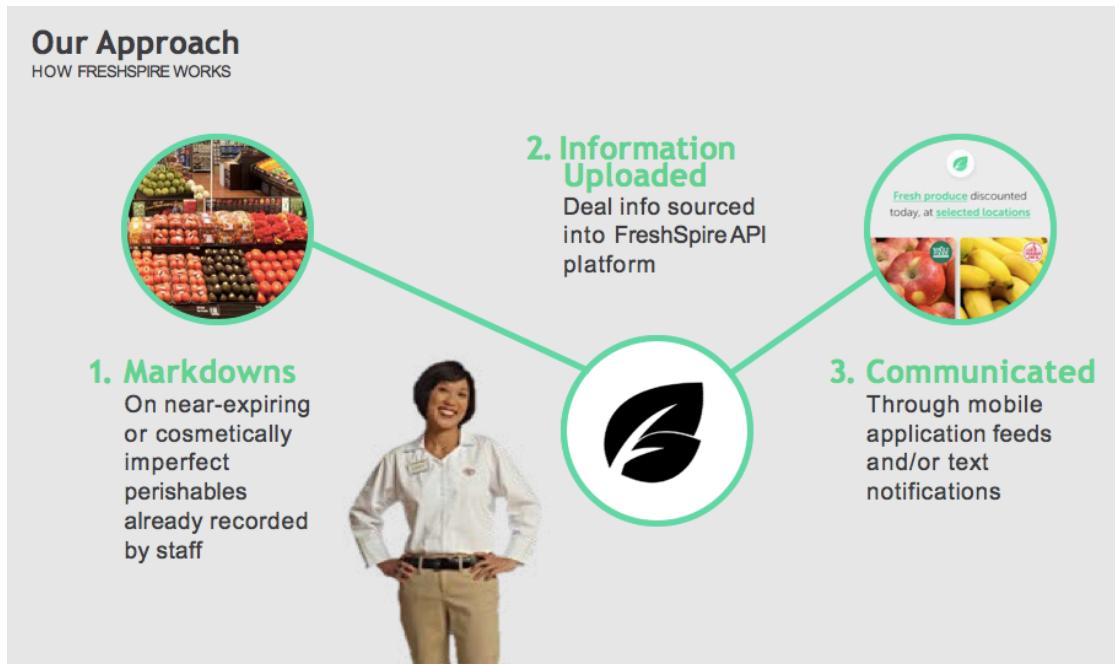


Figure 1: Flow of Information

Market Analysis

FreshSpire sustains itself as a social enterprise by charging a monthly fee to grocery stores, ranging from \$350- \$500, depending on the needs and size of the grocery store. This price has been determined in relation to the amount of money that FreshSpire should be able to save the store and the price each store would pay for weekly-deal flyers. The company is focused on the grocery industry for the time being, however, there has been discussion to expand to the retail level in the future. According to the USDA, a typical grocery store throws out \$2300 of food daily; adding to our nation's landfills. By extrapolating that to the amount of food waste per month, and assuming a \$500 licensing fee for the 37,000 grocery stores in the United States, FreshSpire has a Total Addressable Market (TAM) of \$222 million annually. Additionally, most large chain grocery stores like Harris Teeter, Lowes Foods, Food Lion, Fresh Market, and Whole Foods (along the East Coast) do not buy their produce on consignment. This means that any wasted food is a loss to the grocery store. FreshSpire's services ultimately help boost the bottom line for grocery stores.

The largest barrier of entering into this market is integrating with grocery store inventories and systems. To achieve such a status, FreshSpire will start small with just one or two independently owned grocery stores. By providing a proof of concept within such stores, the company hopes to make its way up the ladder. Additionally, another barrier includes scenarios in which a FreshSpire user makes a trip to the store to find that the marked down produce is already sold. To resolve this, the application uses timestamps to allow the user to make sound judgments as well as a live newsfeed that is an accurate representation of what is in the store once backend integration is complete.

FreshSpire will use iBeacon region sensing technology to track the number of FreshSpire users that frequent grocery stores. By attracting these consumers, the company also hopes to create foot traffic and customer loyalty for grocery stores.

Customer

In addition to grocery stores, FreshSpire targets consumers who are low income, budget and health conscious, or who are looking to live a more sustainable lifestyle for themselves and for their families. Customers are constantly seeking innovative approaches to making their shopping experiences better and less expensive. Through a recent general survey of over 400 individuals on a social media site, FreshSpire received positive feedback on the general question and assumption that FreshSpire hinges its success on (Figure 2). A majority of individuals from the survey group would not only benefit from FreshSpire's features, but would make purchases due to the notifications received by FreshSpire.

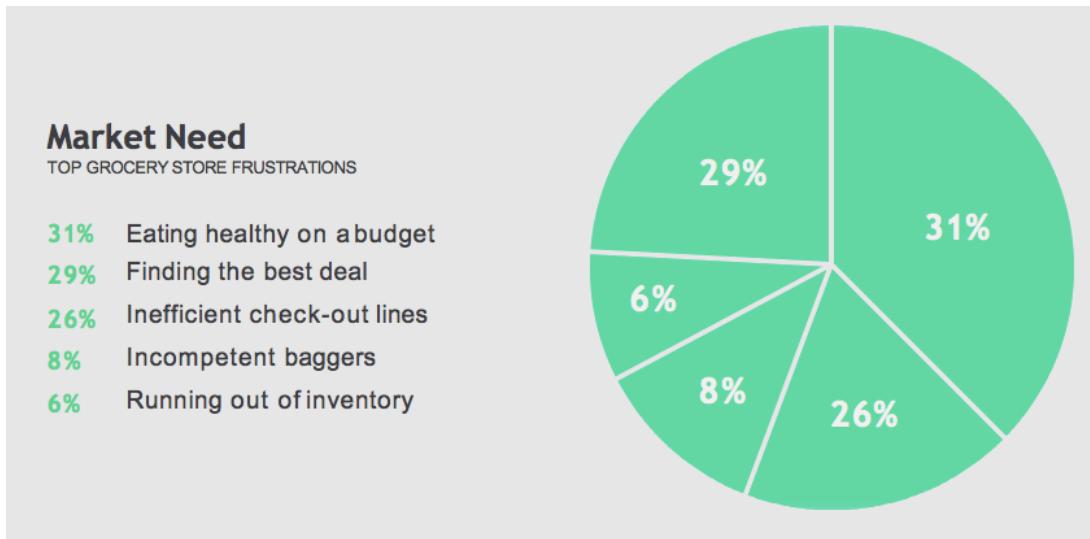


Figure 2: Market Research

Additionally, according to National Geographic's "The new face of hunger" article, installment plans on consumer electronics ensure that individuals of a lower socioeconomic status have cellphones and televisions. As of January 2014, the Pew Internet Project claims that 90% of American adults have a cell phone. With this demographic, FreshSpire is confident that the mobile app will attract many users.

Competition

Today, grocery stores advertise through weekly deal flyers and websites that are specific to each store. Though this may seem to be efficient from the grocer's perspective, it is actually ineffective to most consumers, as they must spend time searching through papers and websites to try to find the best deals within their area. Other competitors include websites like mygrocerydeals.com and The Grocery Game. These websites compile weekly deals into an online database; however, neither of these methods are updated with daily discounts. FreshSpire is one of a kind because it is uploaded with real-time in-store markdowns. Additionally, it is customizable to user location through use of GPS technology in the iOS and Android application. Since FreshSpire is technology based, it doesn't require the use of paper (like weekly deals), encouraging environmentally friendly practices. Lastly, in the spirit of availability, FreshSpire is free to all shoppers. Clearly, the features that this solution offers far outweigh those of its competitors.

Niche

Using innovative communication technologies, FreshSpire brings a unique service to consumers within the grocery industry. It connects existing problems like food waste and finding healthy deals on a budget to create a user-friendly solution. FreshSpire is unlike anything ever used in the grocery store industry, and the company hopes to create a lasting impact on the society and the environment.

Description of Products and Services

FreshSpire is a communication system in the form of a mobile application or a text notification system, depending on the user's needs. The mobile application is available to those with smartphones, and its most useful features are:

- The scrolling newsfeed to ensure that the consumer has the latest deals, right at their fingertips.
- Powerful filtering technology helps consumers find what they want, and where to find it.
- Intuitive notifications react to consumer habits and routines.
- Additional app features include recipes and nutrition facts so that consumers are not only purchasing healthier foods, but are also becoming educated on the new foods they are eating.
- The personal expiration date calendar uses common shelf life data for typical groceries to estimate the expiration date of the shopper's items and alert the shopper when fridge contents are nearing expiration, thus reducing waste at the household level.
- Language options: the mobile application will be available in both English and Spanish.

Overall, the mobile application benefits the user by catering to the technologically savvy and fast paced lifestyle of many grocery shoppers. It will provide instant information and alerts while reducing food waste and easing the buyer's financial and health conscious burdens.

The text notification system is available for shoppers without a smartphone and its most useful features are:

- Alerts on daily markdowns at grocery stores the shopper has signed up for. Similar to a VIP or rewards card, grocery shoppers will have the opportunity to give the grocery store their phone number if they would like notifications.
- For the grocer, this system will increase store foot traffic, act as an aid in advertising, enhance the store's sustainable image, and liquidate fresh produce inventories prior to expiration.

The text notification system benefits the consumer and grocer by serving the basic purpose of FreshSpire: to improve communication between the seller and the buyer and to promote sustainable ways of doing business. Services that arise after subscription include expansion to more grocery stores, which will provide a growing number of options for the shopper.

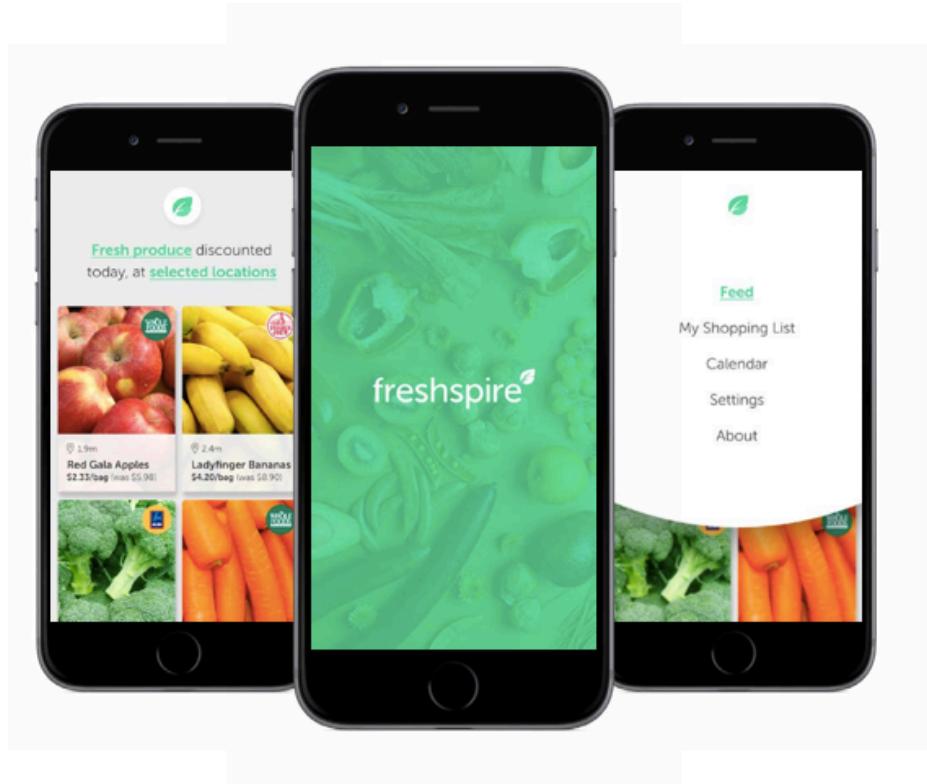


Figure 3: App Design

Organization and Management

Production

So far, FreshSpire has developed a text-notification service prototype on Amazon Cloud using AWS's services of SNS (Simple Notification Service) and SES (Simple Email Service). Through this, grocers can post their specials, and subscribers who initially signed up on web would immediately get notified via email and/or messages. This has been used for an initial pilot test in Greenville, NC and will be utilized for additional partnerships. FreshSpire is currently in a 6-month incubator program known as The Big Idea, and is undergoing extensive market research as well as beginning conversations about preliminary app development. The mobile application's integration with grocery store inventory data is vital to the success of the product, thus production considerations include compliance with the IT departments of the grocery stores. The FreshSpire team will ensure quality by working very closely with the developer. The application development will be based on plugins, PHP and Java script, and enhanced for the Mobile Platform.

Location

The concept of FreshSpire was born in Durham, NC, which is part of the Research Triangle Park (encompasses the three nearby universities: Duke University, UNC Chapel Hill, and NC State University). Fortunately, this location is a hub for innovation and creativity, and three out of the five team members currently attend school in the Triangle area. Beginning and pursuing the project in this type of environment has led to valuable mentors, exciting connections, and lots of support.

Access

Due to the nature of mobile application, maintenance of FreshSpire does not necessarily have to be handled in a grocery store. Thus, the location of the FreshSpire office need mostly be fit for the up keeping of the application. However, proximity to several participating grocery stores will be helpful for troubleshooting in store issues that may arise.

Legal Environment

FreshSpire is currently pursuing a trademark for their logo. Additionally, contracts are being developed with the incubator program to ensure that proper deliverables have been made by the end of 6 months. Apart from this, the company will not pursue a patent because FreshSpire uses already existing technologies.

Personnel

The management team of five will manage the bulk of marketing, grocery store connections, and customer relations. The team will employ a mobile application developer to both create the application and assist in maintaining it. The team has already made contacts with several developers in the Triangle area to make decisions on the best hire. The ideal developer will have extensive knowledge on data integration with mass inventory systems (such as those within grocery stores) for creating mobile applications for both Apple and Android phones. The management team is as follows:

- **Jennifer Wu, Chief Executive Officer**
 - Undergraduate at University of Pennsylvania
- **Shraddha Rathod, Chief Financial Officer**
 - Undergraduate at North Carolina State University
- **Mona Amin, Chief Operations Officer**
 - Undergraduate at East Carolina University
- **Gabrielle Beaudry, Chief Marketing Officer**
 - Undergraduate at University of North Carolina, Chapel Hill
- **Hannah Sloan, Chief Technical Officer**
 - Undergraduate at University of North Carolina, Chapel Hill

The current management team (co-founders) consists of creative and diligent second year undergraduates who are confident in their abilities to work hard for the company. They developed their idea as high school seniors at the North Carolina School of Science and Math and are now spread across 4 different universities in the United States. Although these official positions are listed, the team has effectively divided tasks for start-up purposes. These tasks are not necessarily related to the position title, and has helped them speed up progress despite their

distance. They began working together on sustainable and innovative solutions over two years ago and have since streamlined their teamwork and delegation skills. Tasks are mostly distributed based on each individual's skills.

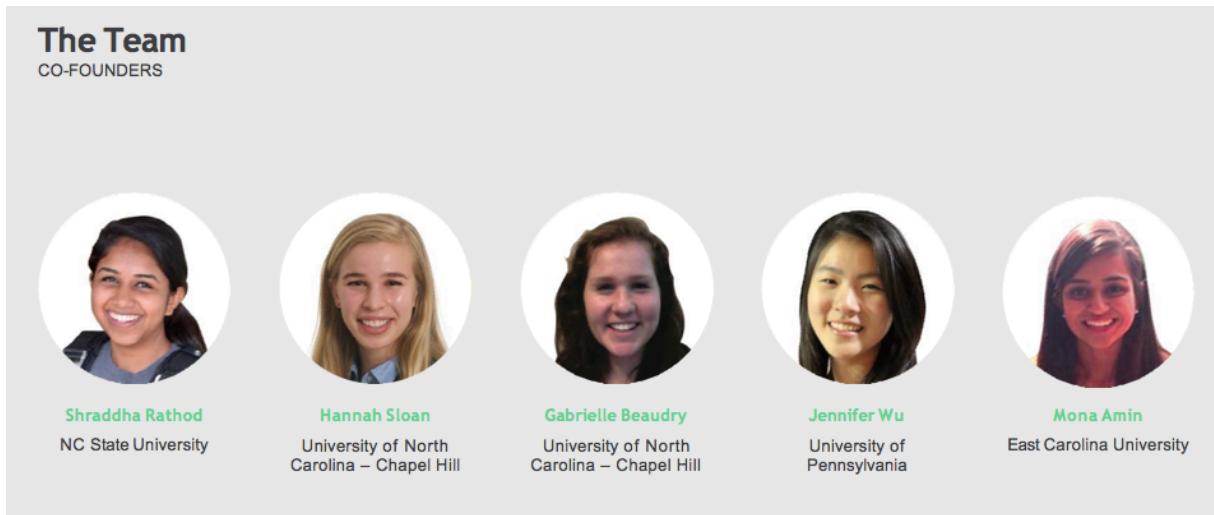


Figure 4: The Team

To date, FreshSpire has earned honors in various venues, including the UNC Undergraduate Social Entrepreneurship Challenge (1st place), Eastern North Carolina Innovation Competition, American Dream Seekers competition, Global Entrepreneurship Week, and more. As a result, they have created a strong professional advisory board, and have had conversations with corporate officials in Food Lion, Albertsons, Whole Foods, Target, and Walmart. The team is passionate about social change, enthusiastic to solve problems in food distribution, and have spent numerous months in hopes of bringing their idea to fruition.



Figure 5: Accomplishments/Recognition

Professional Support Advisory Board

- **Maari Casey:** Founder of Uncompany, Big Idea Incubator Member
 - Assists with building the marketing strategy and the collateral necessary to create hype and get the world excited for FreshSpire.
 - This includes the practical side of marketing, such as logo design and print materials, as well as restructuring FreshSpire's social media and initial marketing plan to attract the first customers.
- **David Baxter:** Designer at Big Pixel, Big Idea Incubator Member
 - The team at Big Pixel is responsible for designing and developing FreshSpire's MVP (minimal viable product).
- **Lewis Sheets:** Director of NC State Entrepreneurship Clinic, Big Idea Incubator Member
 - NC State Entrepreneurship Clinic will partner a group of students with FreshSpire and help them with whatever tasks are needed. The students will then develop a plan with the co-founders and execute that plan over the course of six months. Throughout the project, Lewis Sheets will be there to help, guide, and mentor the co-founders and the team of students.
- **Aled Miles:** Member of Clinton Global Initiative, Portfolio Career Professional
 - Long term mentor for company direction
 - Advises on ways to structure the venture
- **Dr. Fred Eshelman:** Former CEO of Furiex Pharmaceuticals, Entrepreneur, Angel Investor
 - Advised on procedures to incorporate and create startup
 - Offers support on new ventures within the start up
- **Brock Winslow:** Vice Chancellor of Institutional Advancement at the NC School of Math & Science; **Dr. Todd Roberts:** Chancellor at the NC School of Math & Science
 - Provided logistic support for company operations including office space, transportation, and introductions to mentors during year one of operations

Attorney

Hutchison PLLC, based in Raleigh NC, assists with all legal paperwork and incorporation inquiries.

Marketing & Sales Strategy

Promotion and Advertising

Grocery shoppers will see FreshSpire flyers and posters in their local grocery stores. They will read about the services of FreshSpire over social media sites and other Internet sources. FreshSpire plans to hop on the “going green” trend by promoting a sustainable solution to healthy eating on a budget. FreshSpire will project an image that will agree with the mentality of individuals who are socially and environmentally conscious (as well as the coupon savvy). FreshSpire will use advertising methods to attract single moms, families, and college students, whose healthy eating on a budget is commonly a hard task to overcome. For the grocery store, FreshSpire has several main marketing points: FreshSpire can reduce unsold (and wasted) food inventories, increase foot traffic throughout the store, and improve the store’s community outreach and “green” image. Additionally, the company will pitch a virtually risk free product to the stores as FreshSpire’s profit is solely based off a minimal licensing fee.



Figure 6: Company Branding/Logos

Pilot Test Version 2

FreshSpire plans to test the app's ability to change shoppers' behavior and inspire them to seek out markdowns with FreshSpire's tools. This will be done by building a live version of the app. Two team members will pass out markdown cards (possibly including a recipe) and alert shoppers to markdowns currently in the store. Shopper will get a list of current markdowns and possibly a recipe they can make with current marked down food items. Two other team members will be in the store to see if the shopper looks for the markdowns and if they purchase. Two other team members will man a table outside of check out to gather customer feedback. Participants will be given a one of a kind FreshSpire tote bag or t-shirt once they have participated in *Getting FreshSpired*.

Goals:

- Gather demographic information
- Observe customer behavior
- Calculate cost savings (get receipt if possible)
- Sign-up for database

Possible questions answered:

- Age/sex/etc. information
- Did you change your shopping list to buy listed markdowns?
- Do you think you'd use an app that gave you this information?
- How much did you save off your bill?
- Would you change your grocery store for one that used the FreshSpire app?
- Would you like for your current grocery store to use the FreshSpire app?



Figure 7: Promotional Items

Marketing- Eat Your Food

Individuals don't really understand how much food is throw away and how much the cost of that food is. FreshSpire will create a food dump calculator and set this up outside grocery stores and farmers market. FreshSpire will help customers become aware of why we need to EAT OUR FOOD and just how much is wasted.



Figure 8: Food Waste Calculator

Social Media

FreshSpire will invite its audience to show ways they've saved saved on markdown foods and been inspired in the meals they've prepared. FreshSpire will help its consumers by creating recipe cards and building a Pinterest board. Consumers will be asked to use #getfreshspired to show others what they've made.

Promotional Budget

FreshSpire plans to allot \$500 per store yearly for marketing and promotional tools, however this number is modifiable, as the costs will change with the greater number of stores and a longer presence in stores. This specific cost comes from research on the price of window banners, Facebook advertisements, and advertisements on grocery store websites.

Pricing

Creating an app that will be free for users will help form a strong customer base for the grocery stores. By creating a large pool of app users, FreshSpire will help increase foot traffic within partner grocery stores. By asking grocers for a very minimal monthly licensing fee, FreshSpire helps boost the bottom line for the stores, completely risk-free.

Distribution Channels

The mobile app would be sold through both android and apple app stores. For text notifications, the interested individual would sign up through FreshSpire's website, or at any participating grocery store.

Milestones

The following milestones have been developed for FreshSpire's goals during the 6-month incubator.



Financials

Here is the general breakdown of costs that will be required to start FreshSpire and maintain it. However, as noted below the tables, the costs are variable depending on the number of stores FreshSpire serves at a given time.

One Time Costs

<i>Item Description</i>	<i>Cost</i>
Initial App Development	\$41,200
DIY App Development Package	\$500
Total	\$41,700

General Yearly Costs*

<i>Item Description</i>	<i>Cost</i>
Apple App Store Developer Account	\$100
Google Play Registration	\$25
Yearly Maintenance and Updates (for application)*	\$6,000
Cloud Storage (Amazon Web Services)	\$800
Total	\$7,000

*This amount will increase with expansion

Yearly Costs/Store**

<i>Item Description</i>	<i>Cost</i>
Marketing*	\$500
Total	\$500

**This amount will change depending on how long FreshSpire is present in the store.

General Cost Per Store

<i>Item Description</i>	<i>Cost</i>
iPad	\$300
Total	\$300

The four-year projections are based on FreshSpire's progress after the beta test that will be done at no charge to the grocers. FreshSpire gains revenue through a licensing fee of \$500 monthly. Within the first year, FreshSpire will expand from 1 store to 4 stores, then to 50 stores in the second year, and 100 in the third. FreshSpire also will gain revenue from advertisers, starting at \$0.0005 per view for the first 3 years. After the 3 years, it is assumed that FreshSpire will be able to have proven itself to make a larger jump towards providing services for an entire grocery chain. Therefore, the company will reach 200 stores by the end of year 4. The expansion will still occur gradually so that FreshSpire's systems have time to adjust to large boosts in data storage. Along with this store expansion, there will be an increase of awareness of FreshSpire, thus increasing the ability to recover food. Hence, the percent of near expired food we'd be able to save will increase over time. With this, the application will encounter more usage, thus the revenue from advertising increasing to \$0.007 per view. Expenses for all four years include sales and marketing, general and administration costs, and research and development, which vary depending on the number of stores involved. After calculating all revenue and compensating for all costs, it is found that FreshSpire would reach a deficit at year the end of year one, but is projected to reach one million in net revenue at the end of year 4.

Financials

Total Addressable Market

\$69,000

GROCERY STORE WASTE (MONTHLY)

x **\$500/STORE**

FRESHSPIRE LICENSING FEE (MONTHLY)

x 37,000

STORES IN UNITED STATES

= \$222MILLION/YEAR



	Year 1	Year 2	Year 3	Year 4
Licensing fee per store (annual)	6,000	6,000	6,000	6,000
Number of stores	4	50	100	200
Advertising revenue	81	396	954	28,500
Total revenue	24,081	300,396	600,954	1,228,500
Sales and marketing	480	6,000	12,000	24,000
General and admin costs	1,440	18,000	36,000	72,000
Research and development	50,625	24,000	48,000	96,000
Total expenses	52,545	48,000	96,000	192,000
NET INCOME	(\$28,464)	\$252,396	\$504,954	\$1,036,500

Figure 9: Financial Projections