Running a Food Hub: Learning from Food Hub Closures

USDA

United States Department of Agriculture

Running A FOOD HUB

LEARNING FROM FOOD HUB CLOSURES

VOLUME *4*

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Running a Food Hub

Learning from Food Hub Closures

VOLUME FOUR

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Executive Summary

The goal of this study is to examine factors that have led food hubs to close their doors. Many studies have been conducted on successful food hubs, but USDA hopes to fill a knowledge gap by using national data and case studies to draw general lessons from food hub failures. By identifying lessons learned from these cases, we hope this information will assist new and existing food hubs overcome barriers to success.

Based on national data on food hubs, statistical analysis on active and inactive food hubs reveals that such variables as legal status, business model, location, hub competition, and consumer demand do not indicate consistent factors as to why some food hubs fail while others succeed. What these data and the case studies suggest is the most significant factors to food hub success or failure include internal management issues (such as the quality of the staff and business decisions made by food hub managers) and board governance, particularly as it pertains to providing sound advice and guidance to the food hub management team. Six case studies were conducted in an effort to better understand their development, challenges, and the ultimate decision to close. They include:

- **Arganica Farm Club**, Charlottesville, VA (in operation 2009-2012)
- **FoodEx** (originally Organic Renaissance), Boston, MA (in operation 2010-2014)
- **Grasshoppers Distribution**, Louisville, KY (in operation 2007-2013)
- **Growers Collaborative**, Davis, CA (in operation 2004-2011)
- **Pilot Mountain Pride**, Pilot Mountain, NC (in operation 2010-2015)
- **Producers & Buyers Co-op**, Eau Claire, WI (in operation 2009-2011)

Executive Summary
Key Lessons for Success

Based on the case studies, this report identifies key lessons for a food hub's success:

1. Create a Business Plan

Food hubs require a highly complicated and interconnected network of production, processing, warehousing, transportation, distribution, customer service, logistics, and financial management. While social missions are integral to the foundation of a food hub, a strong business plan is necessary to articulate its core business, achieve financial viability, and prepare for challenges ahead.

2. Secure a Strong Financial Foundation

Make sure to have the right amount and the right kind of capital to support the business, allow for growth, and account for inevitable challenges or shortfalls. The level of capital and infrastructure investment that a food hub requires will depend on its particular business model and plan, which may change over time. Factors that may help determine a food hub's capital and infrastructure requirements include the food hub's core activities and services, existing or planned sales and costs, leasing versus owning opportunities, and the availability of existing infrastructure through partnerships. Furthermore, the type of capital required is just as important as the amount; food hubs must determine to what extent equity, debt, or grants are suited for their business model.

3. Start with Expert Staff

Food hubs coordinate a wide range of activities, including food production, processing, warehousing, distribution, customer service, institutional purchasing, and marketing. All of these services require specialized knowledge and expertise. Faced with limited capacity, however, many food hubs tend to invest too little time and capital into hiring, developing, and retaining a professional staff with the appropriate skills. Since hiring a full staff at the outset of operations may be difficult, food hubs should consider both the human resources that are required for daily operations and the duties that can be fulfilled by board members or advisors.

4. Focus on Your Strengths and Find Partners for the Rest

Food hub managers must understand their core competencies and roles in the food system, whether it's to serve as a facilitator, broker, coordinator, logistics manager, processor, or distributor. Instead of trying to develop expertise in all areas, food hubs should identify and build the right partnerships to meet their needs. A common pitfall of food hubs is trying to fill all of the gaps in the local and regional food system, which can be extremely challenging, if not impossible, especially for an enterprise that is just starting out.

5. Know Your Customers and Markets

Food hubs must understand the market and customers that they serve in order to tailor their business to meet their needs. Committing to purchasing local foods can often require educational, cultural, or operational shifts for institutional buyers and individual customers. If buyers are not accustomed to sourcing local food, they are necessarily taking a risk by shifting their purchasing strategies, especially since quality local foods can often cost more than conventional foods. Food hub managers need to understand the specific needs and habits of their customers in order to determine how to satisfy and increase demand. Therefore, before launching, food hubs should do a thorough assessment of the current market landscape and assess the needs and habits of potential customers.

6. Understand the Food Production Process

Food hubs need a consistent, reliable supply of quality products in order to survive. This requires a firm understanding of crops, growing seasons, and the unique characteristics of the farming process, which involve an immense amount of time and investment. It also requires building positive relationships with producers; food hubs must be able to ensure good prices for producers and find ways to build their capacity to grow and be successful.

Introduction

The goal of this study is to examine factors that have led food hubs to close their doors. Many studies have been conducted on successful food hubs, but USDA hopes to fill a knowledge gap by using national data and case studies to draw general lessons for why food hubs fail. By identifying lessons learned from former food hubs, we hope this information will assist new and existing food hubs in addressing challenges, leading to success.

Research on food hub-related industries, as well as statistical analyses on existing and inactive food hubs, was conducted to examine potential factors contributing to food hub closures amidst high survival rates. Six food hub case studies were conducted across the United States to examine reasons for closure.

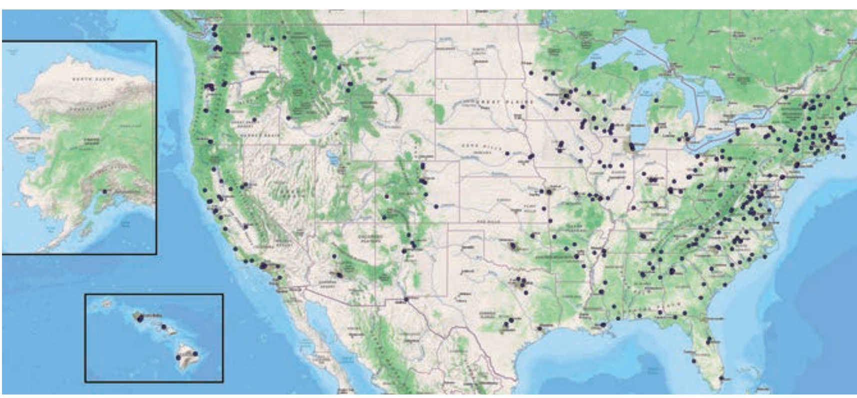
It is important to note that four of the six hubs studied opened their doors during the 2008 recession. However, external factors were not always the main reason for closure. Food hub leaders, as well as others who worked closely with the food hub, provided much of the language and information for the respective case studies. In addition to reflecting on their own lessons, representatives of each of the food hubs gathered to identify common themes. Therefore, this report not only provides information that is specific to the context of new and existing food hubs, but it also provides general insights that may be applied to a variety of cases.

PART I
Food Hub Trends and Contributing Factors of Success and Failure

Food Hubs Have Grown Significantly in the Past Decade

USDA defines a food hub as a “business or organization that actively manages the aggregation, distribution, and marketing of source-identified food products primarily from local and regional producers to strengthen their ability to satisfy wholesale, retail, and institutional demand.[1]” Food hubs play an important role in the food system by meeting the needs of small and “ag-of-the-middle” farmers who lack the capacity to meet the specific volume, quality, and consistency requirements of larger scale buyers, such as retailers, wholesale distributors, and institutions. An increasing number of individuals, organizations, nonprofits, businesses, and cooperatives are seeking to occupy this space and meet the rapidly growing demand for food hubs. Based on the most current database,[2] there are approximately 360 active food hubs in the United States three-quarters of which were established during the past decade.

Figure 1—Food Hub Locations



[1] Barham, J.; Tropp, D.; Enterline, K.; Farbman, J.; Fisk, J.; and Kiraly, S. 2012. Regional Food Hub Resource Guide. Washington, D.C.: U.S. Department of Agriculture, Agricultural Marketing Service, April.

[2] The food hub database used for this report was developed by USDA Rural Development in collaboration with the Wallace Center at Winrock International. This database of 360 active food hubs and 40 inactive food hubs was used to calculate food hub survival rates and identify determining factors for why food hubs cease operations.

Table 1 Annual Growth of Food Hubs (2000–2017)

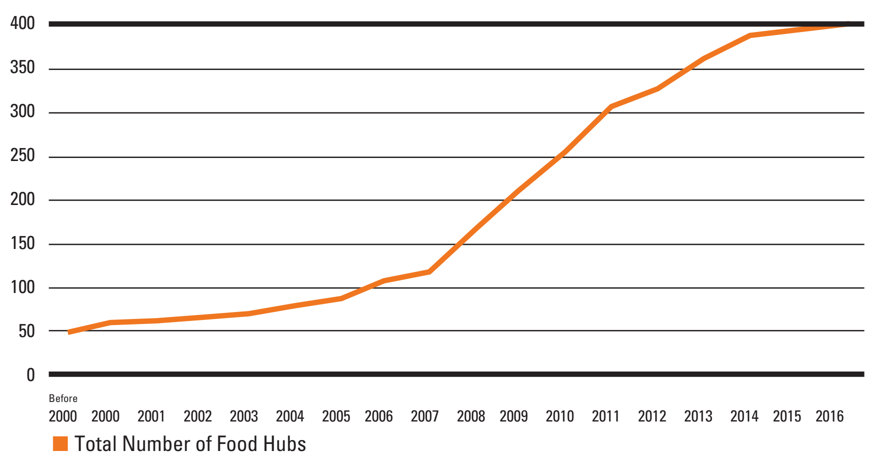
YEAR	Before 2000	2000	2001	2002	2003	2004	2005	2006	2007
Total Number of Food Hubs	46	56	58	61	66	80	93	110	136

FOOD HUBS	Before 2000	2000	2001	2002	2003	2004	2005	2006	2007
New Food Hubs	46	10	2	3	5	14	13	17	26
Food Hubs not Reopening	-	-	-	-	-	-	-	-	-
Operating Food Hubs	46	56	58	61	66	80	93	110	136

YEAR	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total Number of Food Hubs	171	208	251	300	342	359	378	394	400

FOOD HUBS	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
New Food Hubs	34	37	40	46	43	17	19	16	6	-
Food Hubs not Reopening	-	-	2	4	11	15	3	1	1	1
Operating Food Hubs	137	208	249	294	325	326	342	356	361	360

Food Hub Annual Growth Rate



Food Hubs Have High Survival Rates

Building and sustaining a food hub is difficult. A successful food hub relies on several moving parts, including coordinating with producers, aggregating, processing, and storing product, and distributing to buyers. If one piece fails, the whole operation can fail. Additionally, food hubs must constantly balance financial viability with other positive economic, social, and/or environmental impacts within their communities, and maintaining that balance often leaves little room for error. Even though food hubs must be extremely meticulous, which requires rigid time management, the industry demonstrates very high survival rates.

Using a national database of food hubs that includes both active and inactive food hubs (n=400), analysis was conducted to determine survival rates of food hubs, beginning with food hubs established in 2005. Food hubs from 2005 to 2011 were tracked from inception through five full years of operation to determine the number of these businesses that had ceased operations and how many were still operational. For example, a food hub started in June 2005 would have its first full year of operation in 2006. It was then tracked to see if it continued operations for a full 5 years, which would take the hub through 2011, to determine the survival rate (i.e., still being open in 2011). The following table reflects this analysis and shows that food hubs in all periods have maintained remarkably high survival rates.

The aggregate survival rate of food hubs since 2005 is about 88 percent, well over the survival rate for all types of new businesses, which — over a similar timeframe — had a survival rate of only about 53 percent.[3]

It is important to note, however, that many food hubs are relatively new, and the scale of hubs across the country is limited. Therefore, it is possible that the survival rate of food hubs may fluctuate as more hubs enter the industry.

Food Hubs Are Resilient

In addition to a high survival rate, food hubs have also shown to be resilient to changes in overall economic conditions. The U.S. Coincident Index provides a comprehensive view of current economic conditions as it takes into account several economic indicators, including nonfarm payroll employment, average hours worked in manufacturing, the unemployment rate, and wage and salary disbursements, deflated by the consumer price index. From 2004 to 2007, the Coincident Index saw a steady increase until it dipped dramatically in 2008, remaining sluggish until 2011, following the

[3] Bureau of Labor Statistics — Business Employment Dynamics http://www.bls.gov/bdm/entrepreneurship/entrepreneurship.htm

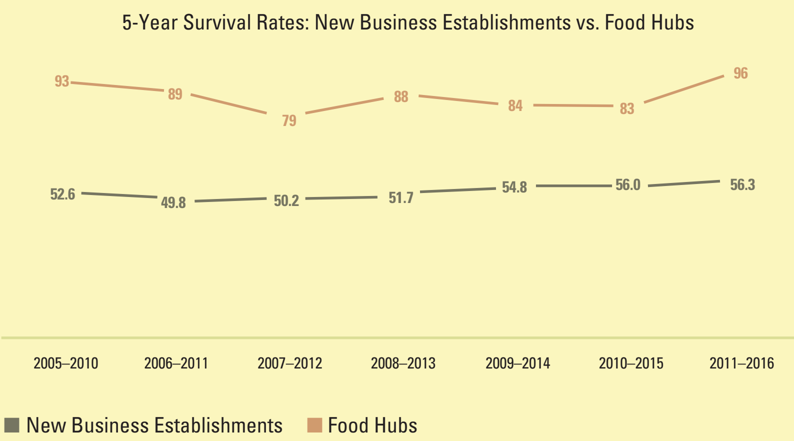
Table 2

Food Hub Surival Rates (2005–2017)

Established in	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
	13	17	26	35	37	43	49	42
Inactive by	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
	1	2	7	5	7	9	2	2
Success Rate	93%	89%	79%	88%	84%	83%	96%	95%

Table 3

Comparing Survival Rates of Food Hubs and Other New Businesses[4]

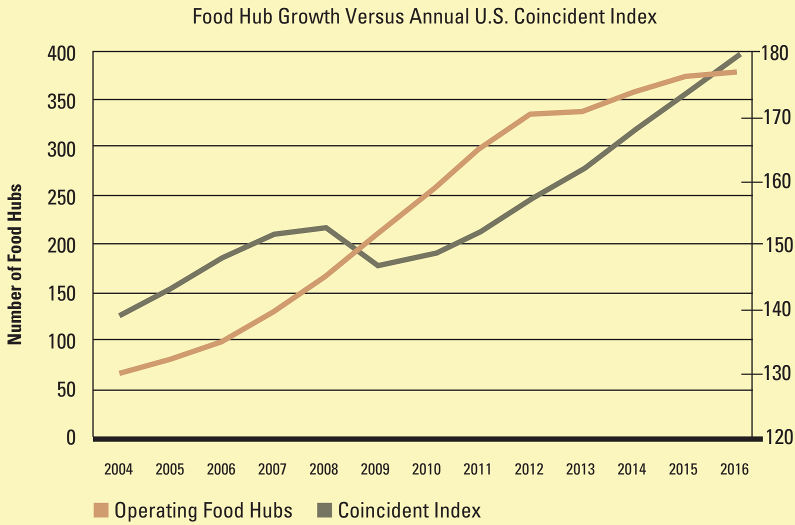


economic recession.[5]

As expected, the economic recession had a negative impact on the number of new business established, from 678,095 new businesses in 2008 to a 20-year low of 560,588 new business in 2010, representing a 17-percent decrease over that period. Food hubs, on the other hand, continued to show robust growth, suggesting that food hubs may be more resistant to shockwaves produced by unfavorable economic conditions.[6]

Table 4

Food Hub Growth During Economic Recession



Assessing factors for food hub success or failure

In an effort to understand contributing factors to the failure or success of food hubs, statistical analysis was conducted based on a USDA/Wallace Center-compiled database of both active and inactive food hubs (n=400), which included legal status, business model, and regional location.[7] These data were supplemented with wider economic environment variables, including institutional demand, consumer demand, hub competition, and production capacity to examine the extent that these supply and demand-side factors contributed to business closure.[8]

Employing logistic regression analysis shows that two variables, production capacity and institutional demand, were found to be highly

[4] Bureau of Labor Statistics —– Business Employment Dynamics https://www.bls.gov/bdm/entrepreneurship/bdm_chart3.htm

[5] Federal Reserve Bank of Philadelphia: https://www.philadelphiafed.org/research-and-data/regional-economy/indexes/coincident

[6] Bureau of Labor Statistics Business Employment Dynamics https://www.bls.gov/bdm/entrepreneurship/bdm_chart1.htm

[7] For a full description of different food hub business models, see: Matson, James; Thayer, Jeremiah; and Shaw,Jessica. 2015. *"Running a Food Hub: A Business Operations Guide."* USDA Rural Development Service Report 77, Vol. 2, July.

[8] The full description of the variables tested can be found in the appendix.

significant factors ($p < 0.01$) contributing to food hub success or failure. A strong relationship exists between institutional demand and the success of operating hubs in a given State, which emphasizes the importance of anchor buyers that can provide food hubs with a steady market for their products.

Somewhat counterintuitively, the findings also show that States with more acreage in specialty crops corresponded with a higher likelihood of food hubs closing. While it is difficult to determine the reasons for this relationship, one possibility is that States with more specialty crops have a comparative advantage over other regions, both in terms of climate and natural resources, as well as food systems infrastructure. Farmers in these regions may not need as much assistance accessing markets, inputs, or other grower services. They may also have a higher number of agricultural enterprises in the region, such as distributors and processors, to work with.

Beyond the demand and supply variables, another interesting finding is that cooperatively structured food hubs are more likely to succeed over for-profit or nonprofit food hubs. It should be noted that this variable is less statistically significant ($p = 0.094$), but prior research has shown that cooperative food hubs have slightly outperformed other types of food hub structures.[9] Full results of the logistic regression model can be found in the appendix.

While national data reveal some market environment factors for food hub performance,[10] the case study findings examined in the next section suggest that internal management issues (such as the quality of the staff and business decisions made by managers) and board governance — particularly whether the board offers sound advice and guidance to the management team, are more likely to have a greater impact on food hub success or failure.

[9] The 2013 National Food Hub Survey showed that cooperative food hubs had on average a better business efficiency ratio compared to nonprofit and for-profit food hubs. The 2015 National Food Hub Survey showed continued strong business efficiency ratios for cooperative food hubs, but also that nonprofit and for-profit food hubs had improved their ratios in relation to cooperative food hubs. Sources: (1) Fischer, M., Hamm, M., Pirog, R., Fisk, J., Farbman, J., & Kiraly, S. *Findings of the 2013 National Food Hub Survey*. Michigan State University Center for Regional Food Systems and the Wallace Center at Winrock International. September 2013. (2) Hardy, Jill, Michael Hamm, Rich Pirog, John Fisk, Jeff Farbman, and Micaela Fischer. *2015 National Food Hub Survey*. Michigan State University Center for Regional Food Systems and the Wallace Center at Winrock International. May 2016

[10] It should be noted that R2 for this logistic regression model was only 0.1123, meaning the model only explains a small portion of the observed data. Full results of the logistic regression model can be found in the appendix.

Part II
Case Studies

Post-mortem analysis of six food hubs

To paint a more vivid picture as to why some food hubs fail, case studies were conducted to gather lessons learned from food hubs that have closed their doors. Six food hubs from across the United States, representing distinct locations, sizes, business models, and legal structures, were selected to examine their development, challenges, and their ultimate decision to close. The following provides a brief overview of each food hub:

- ***Arganica Farm Club*** was founded as a mission-driven private company in 2009. Arganica customers from around Virginia and some neighboring States purchased memberships to receive regular deliveries of local value-added products, such as jams and nut products. However, Arganica quickly expanded to include local produce, meat, dairy, and other products that members could purchase a la' carte through Arganica's website. Arganica staff sourced, aggregated, packaged, and distributed products to central pick-up sites and via home delivery throughout the mid-Atlantic region from its Charlottesville-based warehouse.

- ***FoodEx*** (originally Organic Renaissance) was started in Boston, MA, in 2010 by a group of individuals with a variety of experience in local and natural foods, delivery, software, design and engineering industries, all of whom had connections to local farmers and restaurants. The company operated multiple business lines over time, including an online marketplace to connect local buyers to local farmers and producers as well as a distribution facility and transport delivery service to provide local produce to restaurants and retailers.

- ***Grasshoppers Distribution*** was started by four farmers in Louisville, KY, as a private enterprise to assist small farmers in transitioning away from tobacco production to local produce. Founded in 2007, the food hub's original business model split its market between supplying high-end restaurants and retailers and low-income families in west Louisville, although it transitioned through multiple business models, including wholesale distribution, CSA subscription, and an online marketplace.

- ***Growers Collaborative*** was launched in 2004 in Davis, CA, as a project of the nonprofit California Alliance with Family Farmers (CAFF). The project began in response to growing demand from local school districts to increase their procurement of local food and to have a coordinated process. Growers Collaborative started by driving its own trucks to purchase, pick up, and aggregate product from family farms, then sold and delivered it to institutional and retail customers. These included schools, hospitals, and a restaurant company.

- ***Pilot Mountain Pride*** was established in 2010 as a producer-driven, not-for-profit LLC in Pilot Mountain, NC, under the supervision of a local economic development foundation. Pilot Mountain Pride ran a warehouse facility to aggregate, pack, store, and distribute wholesale fruits and vegetables to restaurants, colleges, and grocery stores, although it also supplied CSAs and operated a retail space.

- ***Producers & Buyers Co-op***, based in Eau Claire, WI, was established in 2009 to coordinate the production, processing, and delivery of locally produced food for two nearby hospitals. Producers & Buyers Co-op operated as a multi-stakeholder cooperative, a unique organizational format whereby multiple membership classes — which included producers, processors, transport providers, and purchasing institutions — all share in the ownership, operations, and governance of the enterprise. The hospitals pledged to purchase 10 percent of its food from local producers. Each member of the cooperative agreed to pay a 5-percent fee to the co-op for every transaction, product handled, and item purchased in order to maintain membership and finance operations.

Leaders of these food hubs, as well as others who worked closely with the hubs, provided much of the language and information for their respective case studies. In addition to reflecting on their own lessons, representatives gathered to identify common themes that provide key lessons for food hubs, which are provided at the conclusion of this report. Case study profiles are presented in alphabetical order.

Arganica Farm Club

Case study by Caesar Layton

Location:
Charlottesville, VA
Business structure:
Mission-driven private company
Business model:
Online membership and buying club
Number of producers served:
~250–450 purveyors, depending on season
Financing:
Private capital from friends, family, family offices and local investors
Sales growth:
$250,000 in 2009 to $2.9 million in 2012
Established:
Summer 2009
Closed:
July 2012 — purchased by Relay Foods

Arganica
Local Foods, Delivered Fresh.

Overview

Beginnings

Dominique Kostelac, a former real-estate developer, began selling maple syrup from his farm in Virginia in 2009. As he started developing relationships with other small purveyors in his community, Kostelac began selling packaged "tasting" boxes of local value-added products, such as jams and nuts. This signified the beginning of Arganica's membership model, in which customers purchased memberships to regularly receive a monthly, then weekly, selection of goods.

By early 2010, Arganica expanded to about 400–600 products, offering local produce, meat, dairy, and an à la carte selection of goods through its own online buyers' club. Arganica members would purchase products on Arganica's website, and Arganica staff would source, aggregate, package, and distribute the products to central pick-up sites or deliver to homes throughout the Mid-Atlantic region. By early 2011, membership grew to over 2,000 customers.

To meet growing demand, Arganica's team grew to 50 full-time and hourly staff, who oversaw merchandising, sales and marketing, aggregation and packing, customer service and finance and accounting. Over 30 part-time contract drivers were also recruited to deliver product to members in Washington, DC, Philadelphia, Baltimore, Charlottesville, Wilmington, Richmond, and Virginia Beach from Arganica's Charlottesville-based warehouse.

Challenges along the way

As Arganica expanded, so did its challenges. The complex combination of customers changing their orders every week, along with changes in crop and product availability, meant that Arganica staff had difficulty predicting the quantity of products to purchase. This often left Arganica with either an excess or lack of product, driving up overall costs. Compounding this problem, Arganica did not have a robust "back-end" technology platform to effectively manage inventory, fulfillment, and delivery. As Arganica grew, logistics became increasingly difficult to coordinate and predict, resulting in orders often being late, misplaced, or inaccurate. When rapid expansion occurred in 2011, customer experience suffered. Consequently, Arganica customer service rankings on Yelp! (a consumer ratings website) and other consumer service measures plummeted, affecting overall customer acquisition and sales.

Arganica also embarked on some major and costly projects that encroached on the company's already scarce resources. For example, in an effort to make the company fully local and offer a fully recyclable delivery system, Arganica began constructing its own locally handmade wooden crates to deliver products. The crates were beautiful and well received, but were vastly more expensive than planned. This drove up membership costs and resulted in membership cancellations. Customers also kept many of the crates, driving up expenses even further.

Finally — and most damagingly — in an effort to drive customer acquisition rates, Arganica participated in large Groupon and Living Social coupon campaigns, starting in late 2010. By 2012, more than 7,000 coupons were issued. However, the coupons were discounted so heavily that each order resulted in negative contribution

As Arganica grew, logistics became increasingly difficult for staff (seen here) to coordinate and predict, resulting in orders often being late, misplaced, or inaccurate.

margins. Additionally, only a small fraction of coupon users stayed with the company post-discount period. A massive surge in membership of limited-time customers combined with the stress that surge put on operations and technology resulted in the company's precipitous 2011 financial decline.

In late 2011, Arganica's principal investor decided that it would no longer invest in the company unless new management and outside capital was obtained. Therefore, in early 2012, Arganica's board hired a new CEO to turn the company around in an effort to cut costs and refocus the company on its core business. Arganica launched its first online procurement platform in January 2012 (previously customers were using an email-based excel system); cut costs across the board, including reducing staff from 50 to 30; and cut several ancillary and unprofitable investments (such as its wooden crates).

Decision to Exit

Despite Arganica's complete restructuring and technological updates, Arganica realized that it would have to invest heavily to build the necessary technology, operations and business model required to achieve profitability and scale. With significant capital already invested and an exhausted cadre of core capital investors, a decision was made to merge in hope of stabilizing Arganica's customer and farmer partners so they could continue to benefit from Arganica's original mission.

In the spring of 2012, the CEO (who by this time had become president of the company) and the board identified a partner in Relay Foods — a competing Mid-Atlantic online grocer that aggregated local food and was delivering food from grocery stores such as Whole Foods. Relay Foods offered Arganica a strong e-commerce website and a more advanced aggregation, fulfillment and distribution system. Relay Foods also had an innovative pick-up model that optimized home deliveries and significantly reduced "last-mile" delivery costs. Arganica brought Relay Foods its nascent D.C. and Baltimore customer base (small ancillary markets in Philadelphia and Virginia Beach were closed as part of the merger), a strong network of local producers and suppliers, and strong customer service and merchandising assets.

In July 2012, Relay Foods completed its acquisition of Arganica. Through the deal, Relay Foods was able to diversify its food portfolio with more robust local offerings while Arganica was able to maintain most of its core business, staff, and purveyors. Since the merger, the Relay Foods–Arganica shareholders share value increased, revenue was grown to over $10 million, and the combined company exited to national organic-centric online grocer Door-to-Door Organics in late 2015.

LESSONS LEARNED

1. Food Hubs need a strong financial model from day one.

Most food hubs are created from both a mission-oriented and business standpoint, both of which are important to a food hub's success. However, food hubs must understand their core business and create a sound financial model in order to survive. Many food hubs are also subsidized by grants or investment deals that seem very attractive in the beginning, but may put the food hub at risk when the financial supports disappear, or when the enterprise cannot keep up with the terms of the agreement.

Therefore, food hubs should be wary of allowing such supports to skew the business model in any way. Additionally, costs around every aspect of the business should not be underestimated and revenue projections should not be overestimated. Since food hubs have very thin profit margins, even small miscalculations in costs, margins or revenue expectations can result in significant reoccurring losses that may even be worsened, not improved, by growth.

2. Understand consumer demand.

While Arganica offered an attractive selection of goods, consumer demand was influenced by a variety of external factors that Arganica did not take into account. For example, since food is seasonal and cyclical, customer buying patterns tended to follow what was in season. Frozen foods, meats, and value-added products were in higher demand in the winter months. In the summer, Arganica's sales dropped dramatically because customers preferred to shop outside at farmers markets, affecting their routine of making weekly grocery purchases. Food hubs must understand consumer habits and how seasonality affects business cycles. This is critical for making key strategic decisions, such as determining procurement cycles, sales campaigns, or how often to offer deliveries.

3. Don't expand too fast.

Brick and mortar food hubs can only expand as big as their walls. However, when a food hub operates online, it is easy to feel that the opportunities for expansion are endless. Every decision to expand comes with significant cost increases that can be difficult to predict if they are not fully understood. Instead of building a business and hoping customers will come, food hubs should focus on the profitability of each added customer and only expand when it knows it can achieve profitability on a per customer basis.

With limited capacity, Arganica expanded its operations to several different cities before its core business in the Washington, DC, area was operating efficiently and profitability. If managed correctly, food hubs can be very profitable in a small geographic area. It is important to think about the depth of a market before thinking about expanding to new ones.

4. Know your core business.

The main draw of Arganica was its large variety of local products. Arganica was known for having a high-quality selection of goods from a wide variety of suppliers and customers in urban Washington, DC, enjoyed having access to products from nearby farming communities that usually were not sold in most supermarkets. This was Arganica's core business, and should have remained the main focus of the company's business decisions and investment.

Redirecting resources to even mission-aligned secondary projects can waste time and money, which can have a serious negative effect on a young, fragile business. By merging with Relay Foods, Arganica was able to focus on its strengths while using existing resources (e.g., Relay's technology platform) to fill other critical needs. Instead of attempting to address all of the gaps in the local food system, food hubs should assess the current infrastructure and landscape in order to determine where they can be best utilized.

Growers Collaborative

Case study written Diane Del Signore[1]

Location:
Ventura County, Davis, and Oakland, CA
Business structure:
Nonprofit, LLC, to nonprofit/private partnership
Business model:
Multiple business lines over time. Production and packing assistance, marketing, distribution and branding for institutional sales as well as direct-to-retail outlets.
Number of producers served:
~180
Financing:
Federal and private grants, Community Alliance with Family Farmers (CAFF) own nonprofit, unrestricted funds.
Sales growth:
Grew to $1 million in total sales at peak in 2009
Established:
2004
Closed:
2011, but ongoing as part of CAFF's Farm to Market Program

Overview

Beginnings

California Alliance with Family Farmers (CAFF) is a nonprofit that has been working since 1978 to advocate for small-scale farmers, promote the purchase of local food, and help farmers increase their income and sustainability. In 2000, the Davis Joint Unified School District asked CAFF for help with identifying local farmers who could deliver produce to Davis schools. As a result, CAFF began playing a "forager" role, actively procuring product (mainly produce) from farmers who could deliver to the district, and providing the district with information about product availability, volumes, sources and prices. CAFF oversaw the billing and collecting of receivables from the district and paid the farmers separately. It did not charge the school district for services.

By 2004, the Davis School District was purchasing directly from nine farms, with CAFF's assistance. However, the transaction costs of

[3] This case study is largely drawn from "Making the Invisible Visible: Looking Back at Fifteen Years of Local Food Systems Distribution Solutions" by Community Alliance with Family Farmers (CAFF). The full report can be accessed at http://caff.org/wp-content/uploads/2010/07/CAFF-Lessons-Local-Distribution-102814.pdf

coordinating with so many farms at the same time made it difficult to manage deliveries and invoices, school district officials said. Instead, the district wanted a consolidated delivery. Additionally, more school districts and other institutions began approaching CAFF about purchasing local produce from family farms. CAFF responded to the need by founding the Growers Collaborative food hub in 2004, funded through a $210,000 USDA Value-Added Producer Grant.

For the next several years, Growers Collaborative oversaw the aggregation, marketing, and distribution of local produce for institutions in both Davis and Ventura County. It drove its own trucks to purchase, pick up, and aggregate product from family farms, then sold and delivered it to institutional and retail customers. These included Kaiser Permanente Hospitals, Bon Appétit Management Company, and area universities. Growers Collaborative used existing cooler space from local growers and a nearby food bank as staging sites. CAFF's executive director and program manager supervised three dedicated staff and one shared bookkeeper for both the Ventura and Davis locations.

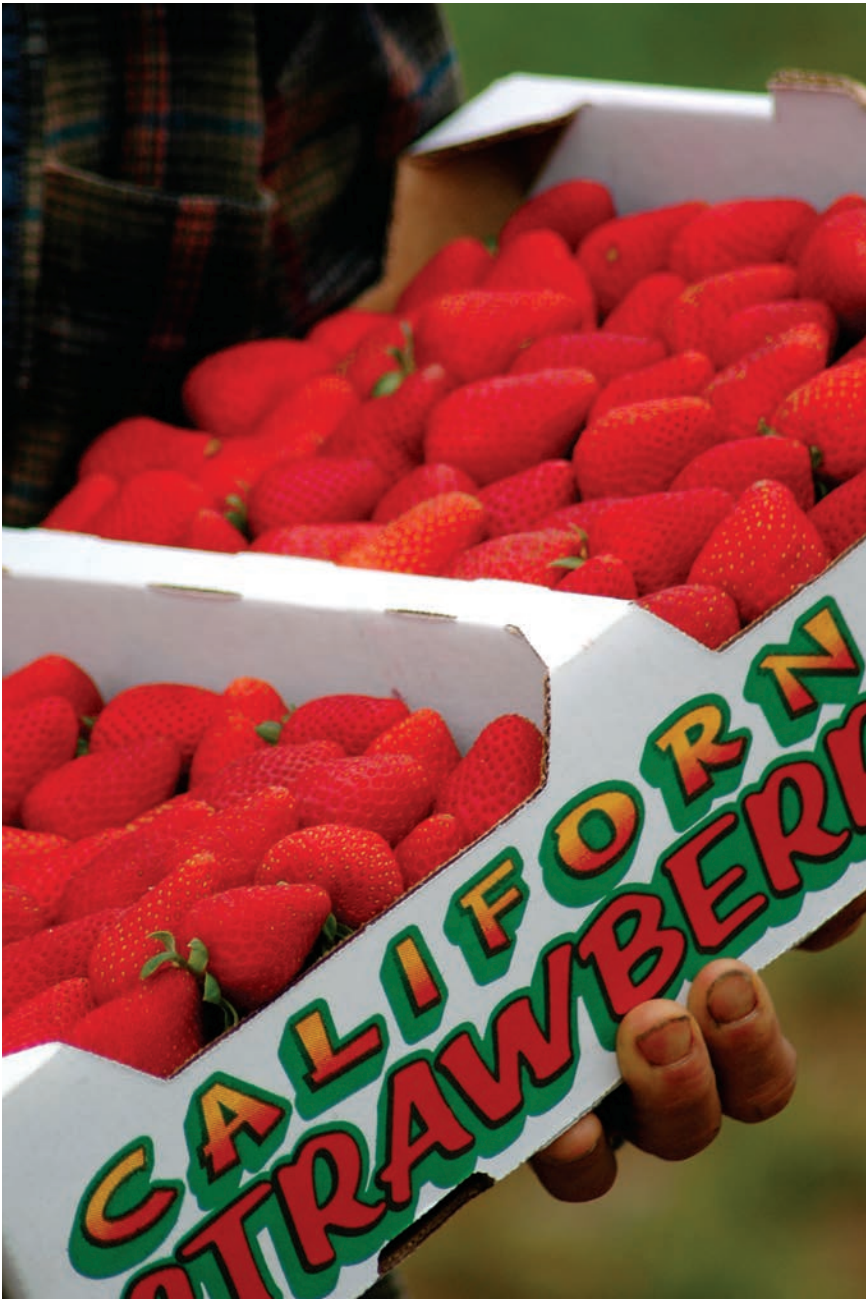
Challenges along the way

In 2006, as sales were continuing to grow, Growers Collaborative incorporated as an LLC under the umbrella of CAFF to see if it would succeed as a for-profit business model. However, without a sound plan for long-term financial viability, private investors were skeptical of the enterprise's ability to be profitable, and Growers Collaborative was unable to secure private investments. Growers Collaborative very quickly resumed financing through public grants and CAFF's own unrestricted funds.

Gross sales of Growers Collaborative continued to grow, reaching more than $1 million (combined for both sites) annually. It oversaw 122 sales accounts and sourced from more than 180 farmers in over 30 counties in California. Unfortunately, the Collaborative's revenue was not sufficient to cover the fixed costs of operation, such as labor, truck maintenance, and other equipment. This was in part due to its substandard facilities, equipment, and trucks, which broke down frequently. The Collaborative did not have the equipment, infrastructure, or ordering systems to accommodate institutional buyers, who expected homogenous, consistent, fresh-cut and packaged product year-round.

While Growers Collaborative staff had some farming experience, no one had real produce distribution experience. Furthermore, the 2008 recession slowed overall sales growth. By 2009, CAFF decided to stop operations in Ventura and Davis, since the Collaborative was unable to breakeven without continued grant subsidies.

Instead of closing down altogether, Growers Collaborative restructured into a private partnership with L. Cotella Produce, a wholesale produce company in Oakland, CA, to form "Thumbs Up, a Growers Collaborative."



This was a private, family-owned business that sold local product to larger distributors. Thumbs Up owned and managed business operations, using its own warehouse and equipment to source, aggregate, and deliver produce. Thumbs Up also used its own proprietary software system to allow customers to access all pertinent sourcing information for a specified product, including the farm and location. CAFF, in partnership, provided support in branding (under its established "Buy Fresh, Buy Local" campaign), marketing, and contract negotiations with major distributors to offer "Buy Fresh, Buy Local" products through purchasing from Thumbs Up.

Decision to close

Unfortunately, Thumbs Up was never able to reach the scale necessary to achieve viability. Without large enough volume, the transportation costs of working with multiple small farms and driving long distances to pick up and deliver small amounts of produce were too high. Additionally, as local produce became more desirable, mainline distributors began going directly to the farms themselves. Given that these distributors were gradually increasing their capacity to handle and market local specialty items, from a business standpoint, it made sense for them to try to do this directly, rather than going through an aggregator. Unable to keep up with costs, Thumbs Up shut down in 2011, along with Growers Collaborative's operations.

While the food hub model effectively closed, CAFF shifted gears once again in 2012 by establishing its "Farm to Market" program. This new strategy involves CAFF acting as a food value chain "facilitator," connecting farmers to existing mainstream distributors as well as directly to buyers, rather than running a parallel distribution system of its own. In this capacity, CAFF plays a key role in promoting the increased supply and demand of local food by creating shared value among producers and consumers.

This model is currently being implemented in Santa Clara, the Bay Area, the North Coast, Sacramento Valley, and Humboldt County, with a CAFF staff person coordinating efforts in each region. In some cases, CAFF connects famers directly to institutional and retail buyers and assists with production planning. In others, CAFF facilitates the aggregated purchasing of local products by working with institutions to aggregate demand, farmers to coordinate supply, and distributors to procure, source identify and label local products. CAFF also supports institutions, farmers, and food service leaders with resources and technical assistance, to assist in the growth of both supply and demand of local foods.

LESSONS LEARNED

1. **Know your context and assess your current resources.**

It is important to understand the gaps that are present in the local distribution landscape, and whether existing resources and infrastructure can be used to fill those gaps. Further, new food hubs take a substantial amount of capital investment and time to develop. An assessment of the current distribution landscape, agriculture economics, and existing infrastructure is critical to determining whether or not new capital investment is needed.

California agriculture is unique because the State produces high volumes of specialty crops year-round. In addition to large, corporate-owned distributors, mid-sized regional businesses and family-owned operations also aggregate and distribute produce in California. Indeed, many farmers have been aggregating product and are acting as food hubs themselves. For example, Coke Farms in San Juan Bautista, Abundant Harvest Organics in Kingsburg, Capay Valley Farm Shop in Esparto and Harvest Santa Barbara are technically food hubs, as they add value to the supply chain by aggregating and distributing product from local farmers. Therefore, in California, new facilities and stand-alone aggregation hubs, unless farmer owned and operated, may not be viable enterprises, as they may duplicate existing efforts.

2. **Work with multiple stakeholders to bring about long-term food systems change, but let farmers lead.**

It is important to foster a diverse, committed set of stakeholders; commitment and willingness to work through challenges from both institutional buyers and farmers is critical. Nonprofit organizations, institutional partners, and individuals trying to cultivate food value chains should think carefully about what they have to offer and where best to apply their skills and expertise. CAFF realized that its biggest contribution to the food value chain is as value chain coordinator, connector and educator, promoting increased supply and demand of local food. Farmers, on the other hand, understand the more nuanced dimensions of their growing seasons. Farmer-led models may be more successful for local food aggregation hubs, in which farmers work together to aggregate their product for mutual benefit, and share in the costs and/or responsibilities of distribution. Each stakeholder must understand its own role and expertise in meeting current needs.

3. Focus on your business's core competencies. Work collaboratively to modify existing infrastructure and foster supply chain values.

When establishing a new, stand-alone food hub is not efficient, a more effective strategy for local food system development is working collaboratively to modify existing infrastructure, fostering supply chain values among current food system stakeholders, and educating the community about local food. CAFF is a well-known, established, and trusted organization in the local food and farming community. Therefore, CAFF was most successful when leveraging what it was already good at: inspiring institutions to buy more local produce, convincing other distribution companies of the potential benefits of local food, increasing education and knowledge of local food purchasing and marketing, and connecting prospective buyers with local farmers who can meet their needs.

Thumbs Up, as an established wholesale produce supplier, understood the produce distribution landscape, and was already successful in building source identification of products into its day-to-day operations. By demonstrating the capability of sourcing, identifying, and tracking produce from local farms, the practice has now become more common as a growing number of distributors have adapted their tracking systems to make it easier for purchasers to choose local items. Each business and organization within the value chain should understand its core business and leverage its resources with other stakeholders to promote its values along the supply chain.

Organic Renaissance LLC, dba FoodEx

Case study by Jonathon Kemp

Location:
Boston, MA
Business structure:
LLC
Business model:
Multiple business lines over time. Retail and institutional sales.
Number of producers served:
~500
Financing:
Debt and private equity
Sales growth:
$200,000 in sales in 2011 to $2.75 million in 2013
Established:
January 2010
Closed:
April 2014

Overview

Beginnings

FoodEx (originally Organic Renaissance) was established by a group of individuals with a variety of experience in local and natural foods, food delivery, software design, and engineering industries. All of them had connections to local farmers and restaurants. Through conversations about how to get more local food into the greater Boston area, they created FoodEx as a way to develop and streamline local food distribution infrastructure. FoodEx's ultimate goal was to strengthen the region's food system by finding a better path to market for farmers and food producers of New England and connecting them with local buyers.

With its main focus on optimizing logistics, the core business of FoodEx was a web platform exchange for ordering local food at all scales. Through the platform, farmers or producers could track their inventory and list their prices, while buyers could browse local food products and place orders. The platform allowed food buyers to make payments through one invoice, even if they were purchasing from several different farms. FoodEx also ensured that producers complied with food safety handling standards.

In addition to the online marketplace, FoodEx sought to create its own distribution channel by renting 10,000 square feet of warehouse space, including 2,000 square feet of cold and frozen storage, along with six refrigerated trucks to transport deliveries. Securing funding for the facility proved to be extremely difficult; FoodEx tried unsuccessfully for over a year and a half to secure private investments. However, through the USDA Business and Industry Guaranteed Loan Program, FoodEx was able to use a 90-percent guarantee as collateral for securing a loan from MassDevelopment Bank to purchase the facility. With its new infrastructure, FoodEx began providing produce to about 30 small- to medium-size restaurants and retailers.

Challenges along the way

Unfortunately, FoodEx did not have enough producers or buyers to reach profitability. At the time, restaurant buyers were accustomed to having in-person relationships with multiple producers to find the freshest produce on a daily basis, while smaller farmers were unable to provide inventory multiple times per day for several different buyers. FoodEx also had difficulty in foreseeing shortfalls; the online marketplace was not equipped to track whether a farmer was going to run out of a certain crop by a specified delivery date. Furthermore, if FoodEx was able to make a guaranteed sale of a crop, and a farmer ran out of the crop by the time the delivery was due, FoodEx did not have other producers to cover the shortfall.

In 2011, FoodEx decided to move away from the small restaurant business and focus on specialty, value-added products for grocery retailers. Again, FoodEx was unable to find enough willing producers in New England to fill the trucks needed for its retail store customers, so long as it sourced only regional products. FedEx pivoted again in late 2011, entering into partnership with Compass USA — one of the country's largest food service companies — to pursue institutional sales. The program started with two universities in a 2011 pilot program and grew rapidly to almost 30 schools and 9 hospitals by the fall of 2013.

While FoodEx experienced significant growth during this time, the misalignment of school schedules and New England farm production seasons meant that the trucks were not full for significant portions of the year, and FoodEx was continually unable to reach a large-enough scale to continue operations at a profit while paying back its loans. In order for the low margin sales to reach a sustainable level for the institutional business, FoodEx estimated that it would have needed upwards of $30 million in capital to raise its scale. This sort of capital was simply not available.

In early 2014, FoodEx switched gears one final time, developing a 100-percent, grass-fed beef product line and re-focusing on specialty sales to retail grocers. Compromising on its original mission, FoodEx now supplemented its regional products sales with "super-regional" products (produced within 500 miles of Boston, or produced by small, sustainable companies from outside the region). While the effort began to take hold, FoodEx still needed another equity capital infusion to reach profitability.

Decision to close

By the beginning of 2014, several things became clear. First, FoodEx had tried several different ways of developing the food hub, but it was still unable to achieve the scale or profitability sought by the investors. Second, the business founder and CEO had suffered a series of significant health setbacks in the previous years, contributing to a series of performance lapses, not all of which were known to the investors and managers at the time. This took a significant toll on the company and its financing status in 2012 and 2013, from which the company could not recover.

Finally, FoodEx began falling behind on its loan repayments. For 18 months, MassDevelopment Bank allowed FoodEx to go deeper into debt and continue operations at a loss. FoodEx had secured over $2 million in private investment and was in ongoing negotiations for a forbearance with the lender for almost a year, which would have allowed new capital to be used for the business instead of paying down the debt. However, these negotiations eventually broke down and the investors moved to allow the bank to liquidate the company.

LESSONS LEARNED

1. Beware of taking on significant debt financing without a strong business model.

Acquiring debt makes sense when there are significant capital assets to purchase as security and well-proven markets and models. Otherwise, the debt load will likely become a significant constraint before the venture reaches enough profitability to re-pay the debt. FoodEx was unable to secure equity investments in its early years, partly due to the economic recession and because food hubs were a fairly new concept for most investors. Ultimately, FoodEx agreed to take on debt from a lending institution in late 2010. FoodEx leveraged its debt to reduce payments and raise additional capital in private equity, but it struggled to repay the debt within the terms of the original loan.

Therefore, food hubs need to be wary of taking on significant debt without a sound business model with a proven track record in the industry. If a food hub is unable to secure equity, this should be a sign that the timing and circumstances may not be right for the hub to exist in the first place. This can be difficult for food hubs to accept, as many are eager to get off the ground as soon as possible. But without the right type and amount of financing in place, food hubs risk falling into further debt from which they cannot recover.

2. Focus on one side of the industry to capture more of the margin.

As an online exchange platform, FoodEx was not originally involved in the production or direct sale of products. In order to bring a company to scale, food hubs need to capture a larger share of either the production margins, by carrying products they produce, or the retail margins, by selling aggregated products directly to consumers. FoodEx found that, regardless of economics or geography, this held true. There was not enough net cash-flow in pure distribution of local and sustainable products to support growth to scale. Warehousing, fuel, and trucking are expensive. To make distribution channels profitable, food hubs need significant volumes of product and demand.

3. Understand the barriers of the industry.

While many wholesale food hubs are currently experiencing success, some of the largest food buyers — such as universities and national retail chains — are still reluctant to buy through local distribution channels because it requires a significant change in behavior. These companies are currently able to place one large order for all of their purchasing needs through a single distributor on a regular basis, and they are able to do so because the distributor operates on a vast scale. Until local food hubs are brought to scale with significant volume, larger buyers will need to source from multiple hubs, each with its own operations and processes. This would require a shift in daily operations and a prioritization of local foods over profit margins in the short term. Therefore, food hubs need to understand that a robust regional food system will not be sustainable until the food hub industry can be brought to scale.

4. Push the envelope, but do not lose sight of your core business.

FoodEx knew that it had lofty goals from the very beginning: to overhaul the region's food system to focus on local foods. It also knew that it could have a profitable business with only a few trucks, farmers, and small restaurants committed to buying local. But it wanted to do more than that. FoodEx wanted to find a way to scale its business within a traditional industry, while adhering to a set of values based around local food. Even though the company did not succeed, it wanted to explore what was possible, and perhaps change peoples' minds of what could be possible.

However, the company kept reaching for new ideas and changing course without paying close enough attention to the daily task of ensuring a profitable, sustainable business model. Food hubs must not lose sight of the core business that is allowing their operations to continue. The core business could be marketing and promoting products, brokering relationships between buyers and sellers, or raising grant money. Whatever the case, food hubs must be able to plan for the future while focusing on what is currently keeping them in business.

Grasshoppers Distribution LLC

Case study by Lilian Brislen[12]

Location:
Louisville, KY
Business structure:
Farmer-led LLC, then as an investor-led LLC
Business model:
Multiple business lines over time. Wholesale, direct market subscription service, custom online ordering, value-added products, institutional sales.
Number of producers served:
~70
Financing:
Farmer-owner investments and loans, sweat equity, State and Federal loans and grants, followed by Series A investments
Sales growth:
$40,000 in 2007 to almost $1 million in 2013
Established:
May 2007
Closed:
December 2013

Overview

Beginnings

The main goal of Grasshoppers Distribution was to assist small farmers during a time of market transition for the agricultural economy of Kentucky. Due to a 1998 tobacco Master Settlement Agreement and the end of a guaranteed price program for tobacco in 2004, Kentucky began transitioning away from its primary crop. As a result, small farmers needed to find new enterprises.

Grasshoppers Distribution sought to bridge the gap while also improving accessibility of fresh local products in the underserved communities of West Louisville. Spurred by a feasibility study for a food-based enterprise to serve West Louisville, Grasshoppers was started by a group of four farmers who had significant experience in direct marketing, organic horticulture, Community Supported Agriculture (CSA), operating a mid-sized meat-processing facility, and with integrated value chains. The owners were highly involved in the organization and

[3] This case study is drawn from "Grasshoppers Distribution: Lessons Learned and Lasting Legacy" by Lilian Brislen, Timothy Woods, Lee Meyers, and Nathan Routt. The full report can be accessed at http://www2.ca.uky.edu/agcomm/pubs/SR/SR108/SR108.pdf

operations of the business. However, as operations grew, more responsibility fell on Grasshoppers' four subsequent general managers.

Challenges along the way

The original business model sought to support transitioning farmers while simultaneously improving fresh food security for marginalized community members in Louisville and tapping the growing high-end market for local food through restaurants and other wholesale outlets. Grasshoppers Distribution was to "provide an income to family farmers and micro-enterprise owners while experimenting with the pricing of products so that we can feed a food access-deprived community." Unfortunately, due in no small part to the onset of the U.S. economic recession in 2008, Grasshoppers' nonprofit partners for addressing food security foundered, and thus so too did Grasshopper's ability to engage in those efforts.

On the wholesale front, early roadblocks in increasing farmer production capacity and Grasshoppers' own in-house logistic expertise and infrastructure lead to an inability to adequately supply larger wholesale accounts, such as schools or institutions. Despite their professed interest and intention to work with Grasshoppers, key wholesale buyers identified in the preliminary marketing plan found that Grasshoppers was unable to provide an advantage over working with individual growers for convenience, price, quality, or selection. Additionally, former employees identified a particular challenge in securing farmers who could consistently produce wholesale quantities of high-quality products handled and packed appropriately for institutions.

The difficulty faced in wholesale distribution led to the overhaul of the business model, which transformed Grasshoppers into a subscription program marketed as a Community Supported Agriculture (CSA) Program. Two years into the CSA Program, and still unable to achieve financial viability, a decision was made to switch the format to an "online marketplace" that allowed customers to build custom orders on a weekly basis in lieu of the pre-packaged, season-long share. While this change in services did expand the customer base, it also increased weekly "churn" (i.e., there was a lack of consistent week-to-week purchases by customers). Many customers opted in and out at will, thereby creating a lack of stability and great uncertainty.

Additional change occurred in 2010, when a major capital shortfall led to Grasshoppers very nearly shutting its doors. To prevent the closure, a new general manager (the fourth) led a recapitalization effort through a Series A investor offering, which led to the reorganization of Grasshoppers' ownership into an investor board. This board consisted of five voting members, including a representative of the original farmer-owners, the general manager (whose title switched to president after the investor offering), as well as Series A investors and non-voting members.

In 2013, a consultant was brought on to take over management and restructure the enterprise. Again, Grasshoppers switched its business model to focus on processing and manufacturing value-added products. But while these efforts were met with mixed success, Grasshoppers was under such financial constraint that it still was unable to reach viability. While gross sales for Grasshoppers grew from $40,000 in 2007 to almost $1 million in 2013, the venture never was able to generate a profit. Grasshoppers was finally compelled to discontinue business at the end of 2013.

Decision to Close

By providing an all-in-one enterprise serving both buyers and producers of regionally produced food, Grasshoppers was envisioned by the four initial farmer-owners as a key first step in building a vibrant regional food market in the Louisville Metro area. Though Grasshoppers Distribution was a trailblazing leader in regional food system and food hub development for both Kentucky and in the United States, the enterprise faced significant challenges that ultimately resulted in its closure.

Annual overhauls of its business model and the frequent change of top management were central challenges to developing expertise and efficiencies. At the start of operations, there were few ready examples of successful food hubs to emulate, and a general state of undercapitalization restricted up-front investments in adequate infrastructure and expert personnel. This was compounded by: the absence of a plan based on sound knowledge of existing supply and demand; reasonable benchmarks for growth and evaluative metrics; a lack of capacity (technical knowledge and built infrastructure), both within the organization and the regional food system as a whole; and an inclination to place the social mission ahead of the best interests of the enterprise itself. Furthermore, these interconnected factors served to exacerbate each other.

LESSONS LEARNED

1. Food hubs need to invest in expertise and sufficient infrastructure when getting started.

Finding and retaining qualified staff in key leadership roles was a significant challenge faced by Grasshoppers. This was caused primarily by a lack of adequate working capital to invest in such expertise and the strain placed on a series of managers tasked with developing the enterprise. The complex business model that Grasshoppers worked to develop required a high level of expertise in a number of specialized fields for tasks such as setting up protocols and logistic systems, inventory and warehouse management for highly perishable products, and day-to-day operations of a subscription delivery service.

Rather than a learning-by-doing approach to developing the business, an early investment should be made in a staff person or consultant with intimate knowledge of fresh-produce wholesaling and supply-chain management. This person can help the hub avoid burning through capital in correcting for early missteps and mitigate burn-out of staff and management (a significant concern that is not to be taken lightly). However, it is important to acknowledge that acquiring expert staff or services comes with significant cost, and may present an early and significant fundraising hurdle for new enterprises.

2. Clear plans and metrics should be used to help guide development decisions.

While the initial values-based mission of Grasshoppers was clear in the abstract (to help small farmers and assist underserved consumers in accessing local food products), developing and implementing a specific plan for how the mission would be achieved was challenging. Frequent, almost annual, changes to the business in response to capital shortfalls and a changing market environment posed a serious obstacle to developing efficiencies and expertise within the enterprise. Without a thorough understanding of the conditions of available supply, the particular needs and scope of existing demand, and the infrastructure required to connect those two, significant portions of Grasshoppers' time and capital were expended in changing up the business model to address challenges. These issues were compounded by the logistic complexity of housing several different types of business lines without the capacity to evaluate and achieve efficiencies within them. In essence, Grasshoppers never knew exactly what business they were in, or how to evaluate the specific activities they were engaged in, and thus were not able to make strategic decisions based on a unified vision.

3. The success of the enterprise needs to be part of the mission.

A consistent challenge across the life of Grasshoppers was how to translate the abstract, overarching goal of "helping small farmers" into the concrete, day-to-day reality of running a wholesale food-distribution enterprise. For the leadership of Grasshoppers, the price paid to farmers was a key mechanism for realizing producer development. Many producers recognized that the prices Grasshoppers paid, while generous, were "too high," and seemed at odds with a business model dependent on tight margins.

Additionally, Grasshoppers' leadership adopted a policy of avoiding competition with farmers on any front within the local food market. For example, while the practice of targeting customers outside of the traditional "local food" market, as well as encouraging customers to join farm-based CSAs, may have seemed ideologically important, it went against the needs of the enterprise.

Food hub leadership should identify a strategic and frugal set of core services that address the highest needs within the particular context of that region's existing agro-food system. Recognizing the core competencies of the food hub allows management to focus efforts on innovation and efficacies while having the confidence that success as an enterprise, in and of itself, is the realization of the food hub's mission. The greatest opportunity Grasshoppers provided for farmers was serving as a reliable and high-volume buyer, relative to direct marketing channels. Though the additional services were appreciated, it was Grasshoppers' activities as a food aggregator and distributor that were, in the end, the greatest help to farmers.

4. Food hubs need support from other organizations to help develop producers, consumer demand, and infrastructure.

While the enterprise was able to secure public and private funds to pay for infrastructure and operations, technical assistance was minimal with key partners for the suppliers and customers they served. In a very real sense, the staff and owners of Grasshoppers had to build the food-system foundations on which their business was expected to stand — the necessary preconditions to support such an enterprise were simply not there.

As a values-based enterprise, Grasshoppers' mission included a broad set of social and environmental goals that motivated managers and staff to go "the extra mile" in providing technical assistance and general support for producers. The variability of growers in size, marketing skills, and production expertise required a very extensive and costly level of support. The competing demands of these goals on staff and management's time diluted the effort on the core business needs of the food hub.

As previous studies have shown, successful food hubs thrive within an integrated system of support that includes Extension, public health agencies, nonprofits, state services, and national programs.[13] While there were attempts on the part of Grasshoppers to partner with public, private, and nonprofit organizations, partnerships fell well short of specific needs. Strategic and committed support, beyond financing, from partner agencies and organizations allows food hubs to focus on the business at hand, and supports the broader development of a vibrant regional food system.

Acknowledging that not all regions have equal access to the same level of agricultural support services and technical assistance, there will inevitably be instances where a food hub must take on additional food-system development activities to fulfil its goals and mission. In this case, it is recommended that these activities be conceived of as a separate business line and managed accordingly. Time spent on these activities should be financially accounted for either through grants or other outside investment in such activities, or by direct financial subsidization by the other business lines.

[13] Pirog, Rich, and C. Bregendahl. "Creating Change in the Food System: The Role of Regional Food Networks in Iowa." Leopold Center for Sustainable Agriculture at Iowa State University. Retrieved at: http://foodsystems. msu. edu/uploads/file/resources/creatingchange. pdf (2012).

Producers & Buyers Co-op

Case study by Margaret Bau[14]

Location:

Eau Claire, WI

Business structure:

Buyer, producer, processor, and distributor co-op

Business model:

Institutional sales

Number of producers served:

~18

Financing:

Co-op member fees, institutional buyer investments, patient capital investments and equity from members and the local community

Sales growth:

$180,000 on May 2011, growing to $300,000 by July 2011.

Established:

March 2009

Closed:

July 2011

Overview

Beginnings

The idea for Producers & Buyers Co-op began in January 2008 during a value-agriculture conference for small producers in Eau Claire, WI. The spark there was a meeting of local farmers with representatives from River Country Resource Conservation and Development Council, Inc. (RC&D) — a nonprofit that works to conserve natural resources and improve quality of life in the Chippewa Valley of northwest Wisconsin — and Sacred Heart Hospital, a medium-sized, local hospital. The CEO of Sacred Heart acknowledged that institutions such as his were serving low-quality, cheap food that was being trucked from distant shores. The hospital wanted to improve food quality while supporting the local Wisconsin agriculture

[14] This case study is largely drawn from "Learning from co-op closure: Dissolution of Producers & Buyers Co-op holds lessons for others pursuing institutional market" in Rural Cooperatives, Jan./Feb. 2012. The article can be accessed at https://www.rd.usda.gov/files/RuralCoop_JanFeb12.pdf.

industry. In June of that year, Sacred Heart pledged 10 percent of the hospital's $2 million annual food budget to buying local food. The next month, River Country RC&D was awarded a State grant to "pioneer" a local food procurement program for institutions.

By 2009, the Producers & Buyers Co-op was formed as a multi-stakeholder cooperative, a unique organizational format in which multiple membership classes — including producers, processors, transportation providers, and purchasing institutions — all share in the ownership, operations, and governance of the enterprise. For example, one member of the co-op represented a small trucking firm that transported food products between Minnesota and Wisconsin, while another member rented out a local meat locker for cold storage. To fund the operation, each member agreed to pay a 5-percent fee to the co-op for every transaction, product handled, and item purchased.

In the governance of a multi-stakeholder co-op structure, care must be taken to balance the diverse needs of all stakeholders, while unifying members under a common mission: to support the local agriculture economy by linking local producers and institutional food services. It was in this spirit that the Producers & Buyers Co-op began to coordinate the production, processing, and delivery of meats, fruits/vegetables, dairy, eggs, dry goods, and other locally produced food for Sacred Heart.

Challenges along the way

Rather than taking the time to raise equity with a capital drive, co-op members decided to begin operations with limited resources to start supplying the hospital as soon as possible. The growing season in northern Wisconsin is short, and neither the co-op nor Sacred Heart wanted to wait until the next spring to begin distribution. Without sufficient capital to hire a skilled team, the co-op hired one part-time operations coordinator who lacked significant experience coordinating food logistics. Therefore, board members stepped forward, striving to fill operational and managerial functions. But with limited staff, board members experienced significant "burnout." The food hub co-op went through three part-time staff members within a year; board members were unable to meet increasing time demands for intensive governance and policy development.

Shortly after Sacred Heart joined the co-op, St. Joseph's Hospital in Chippewa Falls, WI, Sacred Heart's sister facility, joined the co-op as buyer-members. Each institution publicly pledged to spend 10 percent of its budget on local food. That pledge was then increased to 15 percent. However, the board treasurer calculated that the institutions purchased only about 7 percent of their food through the co-op. There were several challenges that led to the shortfall. For one, producers had to shift their product and packaging to institutional standards, which can often differ from general consumer preferences. Without significant communication between producers, purchasers, and cooks, the product was on occasion substandard.

Additionally, institutions were not prepared to make firm commitments to purchase certain products, such as local meat, which can take many months to several years to grow to maturity and become available for delivery. By the time a product was ready for purchase, the needs of the institution would often change and orders would be cancelled. For small farmers, even one cancelation can severely hurt business. As a result, trust broke down between producers and buyers. Buyer-members did not agree to sign contracts with producers, and producers and processors grew reluctant to do business through the co-op.

Decision to close

As staff continued to transition, and as trust between producers and buyers continued to break down, the cash-flow situation deteriorated. Shortly thereafter, the founding buyer-members announced that their health system owner had entered into a contract with a multinational corporation to manage dining services for all hospitals within the system. While the food hub theoretically could have continued selling to the institutions through the new dining management contractor, it would have had to incur substantially higher administrative costs. These costs made continuing business with the institutions economically infeasible. Furthermore, with Sacred Heart as the co-op's largest buyer-member, the food hub lacked sufficient additional buyers to offset the loss. It never recovered. On July 20, 2011, members of the Producers & Buyers Co-op voted to dissolve their cooperative.

Vic and Mary Price, seen here on their Wisconsin farm, were members of the Producers & Buyers Co-op, which worked as a coordinator among producers, processors, transporters and buyers.

LESSONS LEARNED

1. Do not let the co-op become identified as one member's project.

The producers and processors had hoped that the clout of the founding hospital would help convince other institutions, such as other hospitals, nursing homes, universities, and school districts, to join the co-op. However, initial interest from potential new buyer-members waned, possibly because the co-op was so closely identified with another institution. It is important for food hubs to engage multiple members from different producer, processor, transportation provider, and buyer classes. Having a diverse range of committed members can help a co-op withstand significant changes in personnel and membership.

2. Food hubs need to raise sufficient capital before launching operations.

The Producers & Buyers Co-op began operations before it was able to build a solid equity base. With a prospectus in hand, ordinary citizens and community-minded investors could have been approached for their financial support. Additional starting capital would have allowed the co-op to hire experienced, knowledgeable, and innovative full-time staff to manage operations and to solve problems. It would have also protected the co-op from unexpected shortfalls. If sufficient capital could not be raised within a reasonable time window (say 6-to-9 months), this would have been a powerful signal to leaders that wider community support did not exist for the local food system concept. But, as is often the case, several buyer representatives and producers were in a rush to get operations off the ground.

Food hubs should have the capacity to invest in infrastructure and expertise before beginning operations to prepare for the inevitable challenges that arise in any new venture.

3. Be aware of how each stakeholder is accustomed to operating (ordering and pricing).

Small-scale farmers and processors are often willing to work based on verbal agreements, while institutional buyers are accustomed to placing and cancelling orders with large food service providers. Depending on the item, it can take anywhere from 3 months to 2 years to raise a product to maturity. As the date for processing nears, the food buyer for the institution with whom the farmer made that verbal commitment may be long gone.

In most small business interactions, a 50-percent downpayment would be made when the order is placed and the other 50 percent paid upon delivery. Due to the commodity nature of agriculture, shared risk between buyer and seller rarely occurs within the food service industry. The initial costs of seasonal inputs are born solely by the farmer.

For a start-up food hub, it may be unrealistic to expect institutional buyers to step forward to make down payments on orders. But for some specialized products (for which there are not commodity substitutes from other supplier sources), perhaps the food hub could work out a downpayment arrangement. If a food hub could eventually develop sales agreements, farmers could invest with confidence for inputs and equipment, while institutions could have pre-season influence on what items are produced at an agreed-upon price.

4. Provide ongoing training; educate and train members at all levels.

Understanding and valuing local food requires a cultural shift if institutions are to make long-term buying commitments to a food hub, despite shifts in personnel, policies, and the economy. Quality foods may initially cost more than conventional food products, but there are numerous rewards for buying locally, which need to be continually identified and communicated to buyers. Producer and processor members also need continual education to understand the differences in wholesale and retail pricing. Great care should be taken to facilitate information sharing between producers and buyers.

For example, without communication with kitchen staff, farmers and processors did not receive sufficient input in how to package product for the institutional environment. Additionally, education is needed for menu planners and cooks about how to prepare farmers' products, such as certain cuts of meat or fish. Without a connection between producers and buyers, producers felt hampered by their inability to gain access to, and information from, key players at institutions. At the same time, institutions did not fully understand the whole value of committing to local food.

5. Use the food hub as a coordinator.

The role of the food hub as coordinator among producers, processors, transportation providers and buyers worked well. Institutional buyers have limited resources and interest in identifying individual producers of local food. Further, they are usually not aware of what constitutes safe and sustainable growing practices at the farm level, nor are institutions interested in setting up individual orders and following through on each product all the way through production, processing, and delivery. When done well, food hubs can ensure an agreed-upon level of quality, aggregate product, and ensure follow-through in delivery and invoicing. The Producers & Buyers Co-op's financial design of managing purchases directly from institution to producer worked well on paper and in practice. This was facilitated by a certified accountant who served on the board of the co-op and set up its spreadsheets. Sound financial planning in this regard helped ensure that all producers and processors were paid in full in a timely manner, despite the co-op's financial troubles and dissolution.

6. Be honest and strategic.

Institutions need to understand that local food will cost more and requires a real effort and time commitment. Therefore, institutional buyers need to realistically assess their willingness to pay for certain products and standards and determine what will yield the greatest "bang for the buck" for the institution. Understanding and being realistic about the motivations for purchasing local foods is also important for transparency with local producers. For example, is there an incentive for more nutritious and healthy foods within the community? Better traceability? Public relations? The hub and its producers must understand the needs of the buyers in order to make strategic business decisions.

Farmers also need to understand that wholesale food hubs do not necessarily make sense for all farmers. If a producer is not already at scale, it will be difficult to meet the volume demands of institutional buyers. Farmers should make sure they are capable of wholesale production, which requires different skills, infrastructure, and capacity from direct-to-consumer sales. And while institutions must determine what products are most strategic for their business, so must producers be able to determine what products will yield the greatest return for their investment.

Pilot Mountain Pride, LLC

Case study by James Matson

Location:

Pilot Mountain, NC

Business structure:

not-for-profit LLC

Business model:

Wholesale distribution, retail space, and distribution to CSAs

Number of producers served:

~60

Financing:

Public and private grants

Sales growth:

$300,000 in 2010 to less than $125,000 in 2013

Established:

April 23, 2010

Closed:

January 2015

Overview

Beginnings

Pilot Mountain Pride was established to provide farmers within 50 miles of Winston-Salem, NC, with access to retail, service and institutional food markets. It was funded through the Surry County Economic Development Foundation. Pilot Mountain Pride was organized as a producer-driven, not-for-profit LLC in 2010, primarily focused on the aggregation, packing, storing and wholesale distribution of fruits and vegetables to restaurants, colleges and grocery stores.

Under the supervision of the foundation, Pilot Mountain was led by a board of directors, with a staff of one salaried, full-time employee, one part-time worker, and several additional workers and volunteers who assisted during peak season with packing and moving product through the food hub.

Funds for Pilot Mountain Pride's start-up were provided by Surry County and numerous other business partners, as well as by local, State and Federal government agencies that provided additional grants. In its first year, Pilot Mountain expected to have $30,000 to $50,000 in sales. However, gross sales for 2010 soared to almost $300,000. To meet this unexpected demand, Pilot Mountain quickly scrambled to upgrade its infrastructure and purchased additional equipment for the large volume of produce.

The food hub consisted of a 12,000-square-foot warehouse, including 6,000 square feet of forced-air cooler space, and two, 20x12-foot standing coolers. To handle smaller scale local deliveries to customers, the facility owned a 27-foot refrigerated box truck, but it also worked with area trucking companies to handle larger loads.

Sorting bell peppers at the now-closed Pilot Mountain Pride food hub in North Carolina. Expanding the operation to include a retail business, for which its staff had little experience, contributed to the closure of the hub.

Challenges along the way

The hub's customer base grew to include three grocery store chains, two colleges, several restaurants and an e-mail list of 1,500 customers who received weekly information about the food hub's product availability. The food hub also regularly supplied two CSAs and worked with another eight or nine CSAs on a more limited basis.

Even though Pilot Mountain Pride had a wide and varied customer base, sales dropped to $250,000 in 2012 as the food hub struggled to keep up with demand.

Despite the slight drop in sales, the hub expanded by adding a retail space in addition to distribution to customers. Unfortunately, the retail business lasted for less than a year, opening in June 2013 and closing in February 2014. Bad weather contributed to the closure of the retail outlet, with North Carolina experiencing heavy rains early in the growing season and temperatures that were unseasonably cold. Crop yield was poor that year, and there was not enough produce coming in to keep the retail space stocked.

Another reason it failed was poor preparation for operating a retail business, which was an entirely new business area for Pilot Mountain Pride's leadership. As a result, sales declined to $125,000 in 2013 and the store created additional expenses that could not be covered. Other costs also mounted, leading to a continual decrease in sales and revenue.

In the original business model, Pilot Mountain attempted to maximize farmer profits by returning 80 percent of revenue to the producers, leaving only 20 percent to pay for labor and other operational costs. Unexpected costs, however, made keeping operations within those allocation margins very difficult. Packaging costs alone were substantially higher than expected, as much as 250 percent above projections, according to some sources.

Decision to close

Cost increases, combined with a decrease in sales, ultimately led Pilot Mountain Pride to close its doors. The reliance on grant money and the lack of cash reserves by the second and third years of operation did not allow it to offset the sales slump nor the cost of operating a retail space.

The hub had difficulty with some grant funders, and thus did not receive some money it had expected. The small portion of revenue retained by the hub to cover its operations was ultimately not enough to sustain the business.

Pilot Mountain Pride decided to close in January 2015, before the start of that year's season, to minimize losses and avoid leaving producers without a distributor midway through the season.

LESSONS LEARNED

1. **Reliable income and cash reserves are necessary for growth and dealing with unexpected setbacks.**

While first year sales exceeded expectations and the majority of startup funding was provided by grants, Pilot Mountain Pride faced problems of inadequate cash reserves and planning for scale. After a successful first year, increased costs were incurred for additional infrastructure and the retail store front. When sales dropped, and lacking financial reserves, the added costs could not be met.

Money that is "promised" through grants or other sources may not always come through, so more reliable sources of income are needed. The 20-percent share taken by Pilot Mountain Pride to cover operating expenses had to also pay for packaging and freight, a cost which the farmers probably should have shared in.

2. **The food hub must be prepared for day-to-day operations and use a sustainable business model.**

Pilot Mountain Pride was established by a county foundation, not by farmers themselves, nor by an organization familiar with the task of organizing the aggregation and distribution of produce. This left the food hub ultimately unprepared for the inevitable problems and challenges associated with production, growth, and expenses.

A business model with a larger percentage of sales going to the hub, or other ways to offset shipping and packaging costs, may be needed for business sustainability and growth. In addition, there must be clear procedures, responsibilities and guidelines established at the beginning of operation for both the producers and the hub so that all parties are aware of their roles and obligations to the project.

3. **Grant money is not always sufficient, or reliable, to guarantee sustainability.**

Pilot Mountain Pride depended heavily on grants to meet startup costs. While buoyed by better-than-expected first year sales, the grant money base was not enough to offset the steep sales declines the next year or to provide for the move into the retail market. Problems can arise when anticipated grants are not received and thus should not be relied on. Food hubs need to be prepared for an unexpected drop in grant funding.

4. **Greater product variety allows for more avenues of income throughout the year.**

The decrease in sales due to heavy rain and cold in 2013, leading to poor crop yields, could have been offset by more diversification in product lines, offering a wider range of items for different seasons. Therefore, if one area was impacted, the damage could be partially made up during the rest of the year. Offering value-added products and having the capacity to do limited processing could increase the range of products and extend the growing season.

One of the factors that contributed to the demise of Pilot Mountain Pride was an over-reliance on grants to finance its start-up costs.

PART III
Common Themes—Lessons Learned

Create a Business Plan

There is no mission without the margin. Before getting started, food hubs need a strong business plan and financial model.

All food hubs start with a social mission, such as strengthening local and regional food systems, supporting small- and mid-size farmers, or increasing public access to fresh, local foods. These social missions are not only valuable, but integral to the foundation of the food hubs and should be kept central to its work. While the social mission is important, it is not enough to run a food hub.

Food hubs require a complicated, interconnected network of production, processing, warehousing, transportation, distribution, customer service, logistics, and financial management. Without a business plan to determine how each of these processes will be developed, operated, and managed, food hubs will be unable to articulate their core business and prepare to meet challenges ahead. The food hub will run the risk of failure even before opening its doors if a solid business plan is not established.

Furthermore, a strong business plan and financial model is critical for garnering equity and investors. A food hub must be able to describe its core functions and how it will achieve financial viability. This includes an understanding of its general purpose, the needs of the market, and how the food hub has a competitive advantage in meeting that need. It also includes a detailed calculation of how it will generate sustainable revenue, manage operations, and mitigate risk. Without these components, food hubs will be unable to raise necessary start-up capital. Of the six food hub case studies examined in this report, five of the hubs (Growers Collaborative, FoodEx, Grasshoppers, Pilot Mountain Pride and Arganica) failed, at least in part, due to unsuccessful business plans.

Growers Collaborative, which operated under the nonprofit Community Alliance with Family Farmers (CAFF), incorporated as an LLC to see if it could succeed as a for-profit business model. However, without a sound plan to reach financial viability, private investors were skeptical that the enterprise could be profitable, and Growers Collaborative was unable to secure private investments. While this should have been a sign of Growers Collaborative's potential failure, the food hub continued to operate without ever returning a profit, largely because increased costs were neither planned, nor accounted, for; nor did the hub have a plan for reaching the optimum scale and generating revenue in the long term.

FoodEx was unable to secure startup equity investments, and instead agreed to take on significant debt from a lending institution. However, without a secure financial plan for re-paying the debt, FoodEx could not meet the terms of the loan. Inevitably, its debt load significantly increased. Again, the fact that FoodEx was unable to secure equity should have been a sign of the need to rethink its business, or perhaps wait until it had developed a model with a proven track record in the industry to support its equity search.

Grasshoppers, which had a clear social mission, struggled with developing and implementing a specific plan for how the mission would balance with achieving financial viability and future growth. While the social mission included offering farmers' high prices and extra technical service, Grasshoppers did not plan for how those activities would support the bottom line of the business. Instead, Grasshoppers spent most of its time and capital on frequently changing its business model as challenges arose. As a result, the food hub's finances suffered. Without the necessary revenue to sustain its business, its social mission suffered as well.

Strong business plans are not only important for launching and operating a business; they are also crucial for guiding decisions when inevitable changes or shortfalls occur. Pilot Mountain Pride had an original business model that allowed farmers to keep a significant portion of the food hub's sales revenue. While this plan was viable in the beginning, it did not account for unexpected costs or increases in scale of operations. When packaging costs alone were as much as 250 percent higher than predicted, the food hub did not know how to account for the costs without either backing out of its initial agreement with its farmers or operating at a loss. A business model that planned for long-term sustainability and growth may have included ways to offset such cost increases. In addition, it could have included specific procedures, guidelines, and terms that allow for flexibility when such changes occur.

Business plans are important for ensuring that a food hub stays on the course of fulfilling its mission. Arganica expanded into new business operations, such as coupon campaigns and new packaging, which were neither planned nor fully accounted for in the food hub's original plan. Furthermore, the costs of these new initiatives were underestimated while revenue projections were overestimated. With thin profit margins, these small miscalculations resulted in significant losses. A strong plan can help guide a food hub in focusing on the activities that will support its growth.

Therefore, whether a food hub is searching for start-up capital, planning operations, determining how to address challenges, or seeking to expand, a sound business plan and financial model is vital.

Secure a Strong Financial Foundation

Make sure to have the right amount and the right kind of capital to support the business, allow for growth, and account for inevitable challenges or shortfalls.

The level of capital and infrastructure investment that a food hub requires will depend on its particular business model and plan. It also may change over time according to changes in the market or scale of the business. Factors that may help determine a food hub's capital and infrastructure requirements include the food hub's core activities and services, existing or planned sales and costs, leasing versus owning opportunities, and the availability of existing infrastructure through partnerships. From the six case studies, five food hubs (Growers Collaborative, Producers & Buyers Co-op, Grasshoppers, Pilot Mountain Pride, and FoodEx) lacked a solid financial foundation.

Growers Collaborative's insufficient infrastructure investments directly impacted the food hub's ability to keep up with its fixed operational costs. Growers Collaborative had substandard facilities and equipment, and its trucks broke down frequently. The lack of sufficient resources meant that the business had to continuously incur costs of maintenance and repairs, spending resources that could have otherwise been used for daily operations or to expand the business. It also meant that Growers Collaborative did not have the tools necessary to accommodate the needs of institutional buyers, which expected homogenous, consistent, and reliable product year-round. As a result, costs remained high while revenue was lost.

Producers & Buyers Co-op began operations before having sufficient infrastructure required for producers to shift their product and packaging to institutional standards. Without the time and equipment to do so, the product occasionally did not meet the standards of institutional buyers, causing them to be increasingly reluctant to purchase through the co-op.

Grasshoppers increased its supply of products even when it did not have the cold storage and other equipment necessary to effectively aggregate products from multiple producers. As a result, wholesale buyers found that Grasshoppers could not provide an advantage over working with individual growers. Instead of investing in the necessary infrastructure, Grasshoppers overhauled its business model to focus on a Community Supported Agriculture (CSA) subscription program, which required an entirely different set of capital investment, infrastructure, and staff that Grasshoppers was unable to provide.

Pilot Mountain Pride shows numerous examples of the lack of financial security needed for a food hub. Food hubs should not only consider capital required for current needs, but also capital required for planned expansion and unplanned shortfalls. For example, Pilot Mountain Pride expected $30,000 to $50,000 in sales for its first year, but instead sales soared to almost $300,000. It consequently had to quickly upgrade infrastructure to handle the larger volume of produce. It purchased warehouse space, coolers, and a refrigerated truck and worked with local transportation companies to handle increased truck deliveries. Since this increase in infrastructure was not planned, Pilot Mountain had difficulty meeting the new level of demand, and sales began to slightly drop. This sales drop was later exacerbated by a seasonal shortfall in crop production. Unfortunately, as sales continued to drop, Pilot Mountain Pride did not have enough cash reserves to continue to cover the increased infrastructure costs and absorb the impact of the slump. Appropriate capital reserves would have allowed for the food hub to account for these unexpected changes.

Compounding its lack of foundational financial provisions, Pilot Mountain Pride invested significant resources in a retail space despite a recent drop in sales and a lack of experience in retail operations. In addition to being unprepared for the new venture, unseasonably cold weather led to a low crop yield and sales continued to decline. Rather than supporting expansion of the business, the additional infrastructure created expenses which Pilot Mountain Pride was not able to cover. The same was found to be true for Arganica, which was able to secure significant financial investment but ultimately directed these resources toward unnecessary infrastructure, hiring more staff than was necessary and offering a fully recyclable delivery system by constructing locally handmade wooden crates to deliver products. Having more capital than is required for the business can lead to misuse of funds that can drive up costs and impede growth.

The type of capital required is just as important as the amount; food hubs must determine to what extent equity, debt, or grants are suited for their business model. Pilot Mountain Pride depended heavily on grants for startup costs and continued to rely on grant funding to sustain its operations. Unfortunately, Pilot Mountain Pride faced problems with its grant providers that led to funds not being delivered and requirements for funding not being met. When this funding failed to come through, the food hub did not have enough revenue of its own to maintain its business. Since money that is anticipated through outside grants cannot always be relied upon, Pilot Mountain Pride could have been better prepared by seeking investment capital from additional sources to meet its needs.

FoodEx relied heavily on debt financing to launch operations, and it was able to leverage the debt to raise additional capital in private equity. However, due to a series of shortfalls, the food hub struggled to repay the debt within the terms of the original loan. When it began falling behind on its loan repayments, FoodEx's lending institution allowed the food hub to go deeper into debt and continue operations at a loss. This ultimately led FoodEx's investors to allow the bank to liquidate the company. Without significant capital assets to purchase as security and well-proven models, food hubs should be cautious of relying on debt financing.

Start with Expert Staff

Invest in a professional staff with appropriate skills in all aspects of the food hub, from food production, to logistics and transportation, to business management.

FOOD HUBS COORDINATE a wide range of activities, including food production, processing, warehousing, distribution, customer service, institutional purchasing, and marketing. All of these services require a unique set of knowledge and expertise. Faced with limited budget, however, many food hubs tend to invest less time and capital than needed for hiring, developing, and retaining a professional staff with the appropriate skills. Since hiring a full staff at the outset of operations may be difficult, food hubs should consider both the human resources that are required for daily operations and the duties that can be fulfilled by board members or advisors. Producers & Buyers Co-op provides an example of placing too little importance on hiring expert staff.

In the beginning of its operations, the Producers & Buyers

Co-op did not have sufficient capital to hire enough staff, only hiring one part-time operations coordinator with limited experience and knowledge of food logistics. As a result, the co-op went through three managers during 2 years of operation, and spent an inordinate amount of time dealing with personnel issues as inexperienced managers floundered. To fill the gap, board members spent much of their time assisting with operational duties instead of focusing on the financial management and food hub planning. An experienced, full-time professional staff would have been able to manage the food hub, respond to operational challenges, and allow the board members to perform their governing duties.

Additionally, the board and staff of the Producers & Buyers Co-op needed farmer members with the experience to meet wholesale expectations. In time, the co-op could have educated retail and smaller scale farmers about the expectations of wholesale operations. However, the co-op needed a core of reliable wholesale suppliers to build initial trust with their institutional buyers. Meanwhile, institutional buyers require education about benefits of local food, including how to shift procurement practices to enable a successful commitment to local food. This includes planning seasonal menus and preparing new products from farmers. As a cooperative that relies heavily on the knowledge and expertise of its members, the Producers & Buyers Co-op would have done well to invest in professional development.

As a second example, Grasshoppers lacked the capital necessary to develop skills required for a food hub enterprise. Unlike Producers & Buyers Co-op, Grasshoppers was run by farmers who had a deep knowledge of the food production process, but it lacked staff with experience in large-scale business logistics, warehouse management, or supply chain coordination. In a very short time, the food hub cycled through several managers. This frequent staff turnover disrupted day-to-day operations, drained time and financial resources of the food hub's board and investors, and prevented the food hub from building institutional knowledge. By investing to build the professional capacity of its staff and hiring a skilled manager, Grasshoppers could have mitigated these risks.

If a food hub finds that it does not have the required expertise for a specific role, the hub may need to rely on other companies or organizations to fill the gap. For example, while Growers Collaborative staff had some farming experience and strong relationships with local farmers, no one on the staff had tangible produce distribution experience. Direct marketing is significantly different from wholesale or institutional distribution, which requires expertise in logistics, warehousing, transportation, and wholesale processing and packaging standards. Since Growers Collaborative did not have these skills, it quickly learned that it either had to invest in the capital required to hire new staff or reach out to other companies that could fulfill this role. By choosing the latter, Growers Collaborative was able to focus on leveraging the expertise of its own staff rather than straining them to take on multiple roles for which they were unprepared.

Determining which roles are required for daily operations, which roles can best be served by board members, and which roles can be fulfilled through outside partnerships will largely depend on the specific needs and capacities of each food hub. At a minimum, food hubs need either a producer on staff or a coordinator who has relationships with the local farming community. For wholesale and institutional marketing, food hubs must have a professional with wholesale expertise as well as experience in logistics and distribution. A board member or advisor can often manage the food hub's finances and make strategic decisions about increasing the scale of operations, but the hub's daily staff must also understand how to track metrics and financial information.

Focus on Your Strengths

and Find Partners for the Rest

Food hubs must understand their core competencies and roles in the food system, whether it's to serve as a facilitator, broker, coordinator, logistics manager, processor, or distributor. Instead of trying to develop expertise in all areas, food hubs should identify and build the right partnerships to meet their needs.

A CRUCIAL ELEMENT for food hub success is identifying the needs of the communities while determining how the hub can directly address those needs through its unique skills and resources. One of the common pitfalls of food hubs is trying to fill all of the gaps in the local and regional food system. This is a rather large and extremely challenging, if not impossible, task, especially for an enterprise that is just starting out. Food hubs often operate within very thin profit margins; taking on too many extraneous projects can quickly drain resources. Heed the lessons learned from the mistakes of Pilot Mountain Pride, FoodEx, Arganica, Grasshoppers and Growers Collaborative.

Initially, Pilot Mountain Pride experienced initial success, with gross sales in its first year that were $250,000 more than expected. However, in an attempt to meet the strong demand, Pilot Mountain expanded to include several grocery store chains, schools, restaurants, and CSAs. It then decided to open a retail space, in addition to its distribution activities, even though the food hub's leadership did not have any background or experience in retail. Knowing the food hub staff and management strengths and weaknesses can help the business thrive. Pursuing goals without adequate expertise or partners can dismantle a business.

Furthermore, FoodEx changed its business model several times over the course of 4 years. What started out as a web platform exchange soon expanded to include a distribution channel with warehouse space, cold storage, and several refrigerated trucks to supply local produce to restaurant buyers. When FoodEx struggled to fill its orders, it switched to specialty products for grocery retailers. When that failed to work, it decided to change its business again to pursue institutional sales. With each passing challenge, FoodEx reached for an entirely new course of action, rather than focusing on developing the most profitable, sustainable business model given its own set of strengths and resources.

Similarly, Arganica expanded too quickly beyond the scope of its own capacities. Arganica operated as an online food hub that was known for its supply of select, high-quality local products. Its founder had a strong relationship with a wide variety of suppliers just outside of Washington, DC, and these customers valued Arganica for providing access to products that they would not normally find in their supermarket. This was Arganica's core business, as it represented the unique value and service that it offered customers. Unfortunately, rather than focusing strictly on this business, Arganica quickly increased its aggregation and distribution services, expanded into home delivery services in multiple cities, launched a recyclable delivery system, and offered a large-scale coupon campaign, activities for which Arganica did not have the resources, skills, nor capacity to do well.

Fortunately, Arganica was able to secure a partnership with another company that had the unique capacity to handle product aggregation, distribution and delivery. This partnership allowed Arganica to continue to focus on what it was good at all along: building relationships with local producers and merchandising quality products while leveraging the partner's resources to compensate for its own limitations.

When the right partners, resources, and support services are not in place, food hubs put themselves at risk by taking on too many roles at once. For example, when Grasshoppers was first established, it struggled to find partners who could provide training, marketing, and technical support for its producers. Grasshoppers therefore tried to provide these services itself, but with limited capacity and expertise. This attempt placed a significant financial and time constraint on the food hub's staff and management, who then struggled to focus on the hub's core business. Indeed, the food hub spent much of its resources on changing its business model to address challenges as they arose, rather than evaluating and focusing on the needs that it was particularly equipped to handle.

Food hubs need to have a firm understanding of their own capacities and limitations as well as those of their partners. If the right supports are not in place, food hubs must determine if they can reasonably afford to develop the supports on their own or if the food hub can successfully operate without them. Otherwise, food hubs may need to reconsider whether the timing is right to launch the enterprise.

Sometimes a food hub may find that its partners are better suited to fulfilling the roles of the food hub than the hub itself. For example, when Community Alliance with Family Farmers (CAFF) established Growers Collaborative as a food hub to aggregate, market and distribute local produce for California institutions, it quickly found that many food hubs already existed in the state. CAFF also discovered that many California farmers already had strong relationships with regional businesses and distributors. Therefore, it did not make sense for CAFF to own and operate a food hub of its own when those resources already existed. However, as a well-known and trusted organization among California farmers, CAFF realized that it still had a unique role to play in the local food system. Instead of managing a distribution system on its own, CAFF now partners with institutions, distributors, and farmers to increase sales and purchasing of local food.

Know Your Customers and Markets

Food hubs must understand the market and customers that they serve in order to tailor their business to meet their needs.

While the demand for local food has grown over the years, it cannot be taken for granted. Commitment to purchasing local foods can often require extensive educational, cultural, or operational adjustments for institutional buyers and individual customers. If buyers are not accustomed to sourcing local food, they are necessarily taking a risk by shifting their purchasing strategies, especially since quality local foods can often cost more than conventional foods. Food hubs therefore need to understand the specific needs and habits of their customers in order to determine how to satisfy and increase demand.

For example, when the Producers & Buyers Co-op established its food hub to provide local produce to nearby hospitals, it did not necessarily understand the extent to which institutional buyers are accustomed to managing orders with large food service providers. Cancelled orders are ordinary for institutional buyers even when cancellations have a significant financial impact on local producers. Knowing this information upfront would have enabled the food hub to consider alternatives for satisfying the fluctuating needs of the institution while also ensuring a fair return for the farmer.

Furthermore, the institutional buyer-members of the Producers & Buyers Co-op did not fully understand the whole value of committing to local food. Without this knowledge, the Producers & Buyers Co-op struggled to communicate why purchasing local food required an increased financial and time commitment. Understanding the buyers' background, experience with, and desire for purchasing local food can help inform the food hub's business decisions.

For example, if a buyer is mainly concerned about traceability, the food hub can focus on this as a core function of the business. On the other hand, if the buyer is mostly concerned with having access to healthier foods, then the food hub can focus on communicating the nutritional value of its products. While purchasing local food may require institutional buyers to shift some of their expectations and practices, food hubs need to determine what is most important and desirable to their customers, such as packaging and pre-processing standards, in order to make the shift as simple as possible.

When FoodEx pursued institutional sales, it soon discovered several barriers in the market. For example, large institutions, such as universities, were accustomed to placing one large order for all of their purchasing needs through a single distributor. Since the food hub was unable to enter the market at a significantly large scale, it was unable to satisfy the institution's entire order. Institutional buyers would have had to purchase through multiple hubs or companies to source local food, which required time and financial resources that the institution could not afford.

Even though Grasshoppers paid farmers a competitive price, the hub did not spend enough time understanding how it would differentiate and provide additional value to its suppliers and customers. Farmers were willing to accept a lower price for working directly with restaurants, and restaurants did not find a real advantage to working with Grasshoppers over buying directly from farmers. Understanding the needs of customers and suppliers can aid in identifying and articulating the business practices necessary to have a competitive advantage.

Knowing community demand can help sustain business. Growers Collaborative realized that distributors in California already had the desire and capacity to work with farms directly. The prevalence of local food and specialty crop farmers in the State meant that it made greater business sense for distributors to work with farmers rather than through an aggregator. Once Growers Collaborative assessed the current market for local food, it determined that the market did not have a need for another aggregator and distributor, although it did need an organization to foster the connections between producers and buyers. Once Growers Collaborative was able to understand the market, it adjusted business practices to meet the market's needs.

In Arganica's case, a variety of external factors that influenced customer demand were not taken into account in the business model. For example, Arganica customers tended to change their shopping patterns depending on the season. In the winter months, frozen foods, meats, and value-added products were in higher demand, while in the summer, customers stopped making regular grocery purchases and preferred to shop outside at farmers markets. This seasonality of consumer shopping patterns could have helped to determine procurement, marketing, and operation strategies.

Therefore, before launching, food hubs should do a thorough assessment of the current market landscape as well as the needs and habits of its potential customers.

Understand the Food Production Process

There is no supply without producers! Farmers must be a priority and included in every step of the process.

To survive, food hubs need a consistent, reliable supply of quality products. This requires a firm understanding of crops, growing seasons, and the unique characteristics of the farming process, which involve an immense amount of time and investment. It also requires building positive relationships with producers; food hubs must be able to ensure good prices for producers and find ways to build their capacity to grow and be successful. All six case studies show a lack of understanding of the food production process and each illustrates why emphasis needs to be placed here.

As a cooperative, the Producers & Buyers Co-op was able to ensure that the needs of small-scale farmers were provided for in its practices. However, it struggled to ensure that producers were not harmed when institutional buyers cancelled their orders at the last minute. Producers invested significant time and financial resources in growing their crops to maturity and were accustomed to using verbal agreements to direct their growing plans. For small farmers with limited supply, sales, and customers, even one cancelation could severely hurt their business. Therefore, there is potentially significant risk for farmers entering food hub supply chains. Food hubs need to understand and appropriately communicate these risks to producers. Wholesale food hubs may not necessarily make sense for all farmers, especially those with extremely limited volume, variety, and capacity.

On the other hand, in order for producers and processors to have a chance of succeeding in the wholesale market, they need training, education, and technical assistance. For Producers & Buyers, farmers and processors did not receive sufficient training in how to package their products for the institutions they were serving, which meant that their supply occasionally fell short of institutional standards, and sales suffered as a result. Investing in the professionalism and expertise of the food hub's producers can help to ensure quality supply and continued buy-in from both producers and purchasers.

In the case of Grasshoppers, the hub's farmers were transitioning from growing tobacco to growing produce, requiring significant training and time to make the switch. It was incorrectly assumed that producers could seamlessly make this transition with little to no technical assistance. Struggles around product quality, quantity, and reliability from producers were all a result of the inadequate transition support, undermining Grasshoppers' early attempts at wholesale marketing.

Understanding the inherent risk involved in farming, such as poor crop yields due to unforeseen weather patterns, means that food hubs need to adopt diverse sourcing practices to increase their resilience. For example, Pilot Mountain Pride experienced a significant crop shortfall due to heavy rain. Trucks were left with empty space and sales declined as a result. This shortage could have been offset by including a wider, more diverse range of products throughout the year. This includes value-added products that could be marketed year-round, or supplemental products procured from just outside the bounds of what the food hub normally considers "local." Diversifying product offerings can help to prevent short interruptions in supply from hindering the business for the rest of the year.

Pilot Mountain Pride also struggled to balance the needs of its farmers with a sustainable business model. In its original model, the food hub promised to give farmers 80 percent of the revenue while keeping 20 percent for labor and operations. However, unexpected costs made this margin unsustainable. Many of Pilot Mountain Pride's farmers said they would have been willing to accept a slightly smaller return to save the business. Having a trusting, positive relationship and open communication with farmers can help to determine a fair producer return that can also meet the business' needs.

Growers Collaborative determined that farmer-led models for food hubs may be more successful than other models. Once farmers understand the needs of buyers, they are poised to have the most nuanced appreciation of the investments required to scale their operations and tailor their products to meet the demand. Farmers may have existing infrastructure and resources to share in the costs and responsibilities of distribution. They are also more likely to already have relationships with the larger growing community, which can be leveraged to grow the food hub's business and supply. Relying on the knowledge, expertise, and experience of farmers helps the food hub ensure mutual benefit for both the customers and suppliers.

While Arganica had a positive relationship with its suppliers, it did not have a deep understanding of the variability and seasonality inherent in the food production process. Without this knowledge, and without a producer on staff, Arganica had difficulty predicting how much of each product to purchase and expect, which often left the food hub with either excess or lack of product.

FoodEx suffered from several supply issues. FoodEx operated as an online exchange platform for producers to list their inventory and for buyers to browse and place orders from multiple farms at once. However, FoodEx did not set up the capability to track whether a farmer was going to be unable to supply certain crops by the time a delivery was due, which resulted in shortfalls. As FoodEx shifted its focus to distributing value-added products for grocery retailers, it struggled to find enough regional producers who were willing to participate. Finally, when FoodEx began pursuing institutional sales through universities, it did not account for the difference between school schedules and New England growing seasons, which meant that trucks were not full for significant portions of the year. In all cases, FoodEx was unable to provide a significant volume of product. All of these challenges required a deeper understanding of the local farming community, its capabilities, and its growing processes and seasons.

Appendix

Variable Descriptions for Logistic Regression Model

Variables	Categories/Description
Legal Status	Nonprofit Private Cooperative
Business Model	Direct-to-Consumer Wholesale Hybrid
Regional Location	Midwest Northeast South West
Consumer Demand	Farmers markets by State per 100,000 population
Institutional Demand	Percent of school district budget spent on local food, excluding fluid milk
Hub Competition	Distance to nearest food hub in miles
Production Capacity	Acres of specialty crops by State per 100,000 population

Results of the Logistic Regression Model (Active versus Inactive Food Hubs)

Variables	Coefficient	P value
Midwest Region	-0.0109926	0.985
West Region	-1.193392	0.205
South Region	0.7138831	0.238
Cooperative legal structure	-0.9416512	0.094
Nonprofit legal structure	-0.5646352	0.186
Business/Institution Model	-0.0249834	0.956
Direct-to-Consumer Model	-0.0648244	0.881
Institutional Demand	-20.43412	0.005
Consumer Demand	0.1286388	0.144
Hub Competition	-0.0061639	0.423
Production Capacity	0.00025	0.002
_cons	-2.136971	0.006

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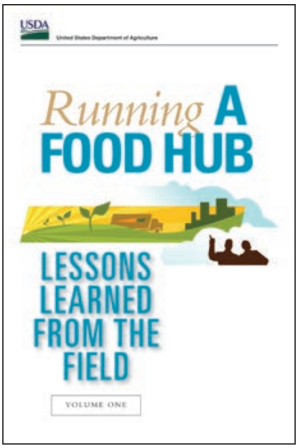

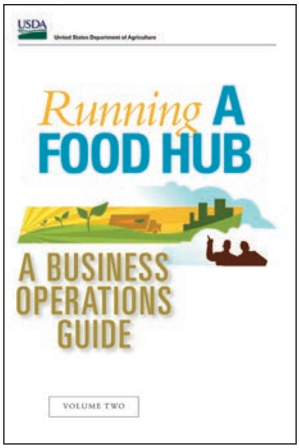

Running a Food Hub: Lessons Learned From the Field, Vol. 1, SR 77
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