BREAKING NEW GROUND
Richmond Food Hub Discussion Paper

September 2015 – January 2016

Prepared for:

Richmond Food Security Society

Prepared by:

Casey Hrynkow
casey@herrainco.ca
604 836 5334

&

Darren Stott, Greenchain Consulting
Darren@greenchainconsulting.ca
778 903 3663

Executive Summary

This project, *Breaking New Ground — Richmond Food Hub Discussion Paper* is conducted by the Richmond Food Security Society and funded by VanCity EnviroFund and the City of Richmond.

The City of Richmond recognizes the importance of farming: "Small farms can be valuable contributors to local agricultural production, to household incomes, and to local food supplies. Furthermore, research has shown that diversified small farms can produce as much or more per food acre than large monoculture operations" (Agricultural Profile Report for Richmond, 2002).

The Richmond 2041 Official Community Plan (OCP) adopted in 1999 established policies to enhance farming in the city by:

- Increasing farmed land
- Identifying agricultural opportunities
- Removing constraints to farming
- Diversifying agriculture
- Improving services

This discussion identifies how a food hub could fulfill each of these enhancements for farming, satisfying this OCP. Particularly, a food hub is a business tool for small farmers.

A food hub is a business or organization. In North America, they are an established approach to aiding in the distribution and marketing of food from small, local farms through aggregation. Without the volume to make sales to traditional distributors financially viable, small farms are left to their own devices to market and distribute their harvests.

The key challenges for small farmers in the Lower Mainland:

1. It is almost impossible for a small farmer to survive on income from the farm. Some farmers use food banks. Most have second jobs.
2. Land in Richmond is very expensive to purchase.
3. Local farmers are competing with lower-cost produce grown less expensively on larger, more industrialized farms.
4. Meeting the consumer demand for local food.

Recent trends indicate increasing demand for food produced by local, small farms:

1. The 2014 hottest restaurant trend in Canada, for the fourth year in a row, is "locally produced and locally inspired dishes."
2. A 2012 survey identified 85% of British Columbians frequently buy local vegetables.
3. The number of BC farmers' markets have increased by 147% in the past 6 years.

While the growing demand for local food is good news for the small farm industry, supplying this demand poses a challenge. As identified above, small and medium sized farms find that the lack of suitable processing, storage, and distribution creates a barrier to sell their local products even though the demand is there. This lack of infrastructure also hampers the ability for farmers to grow their business by means of expanding sales to new buyers and increasing production on their lands

Food hubs are one way for these farmers to gain better access to this marketplace, and this type of business has experienced significant growth in both popularity and success in recent years. As their popularity has grown, so have the ways in which these operations are modeled to meet the needs of both consumers and farmers. In the U.S. average sales for successful food hubs exceed $3 million per year. In the U.S.A alone, there are over 300 food hubs. They create jobs, keep farms sustainable and strengthen local food security as well as the local economy. The same is proven true in newer, Canadian food hubs across Canada including in BC and the Lower Mainland.

Food hubs are an ideal way to bring growers and buyers together. However, at the given time, it is challenging to secure financial and operational stability for a food hub. As food hub popularity has grown, the ways they can be approached have become more varied as a way to meet the unique needs of each region. A common challenge to success among most food hubs has been their organizational structure. Food hubs need to be driven from either the consumer or farming community with co-operation and buy in on both sides of this equation. Funding and financial management are also significant challenges. The success stories in this report prove that challenges can be overcome.

From our discussions with some local farmers, we discovered that there is a lack of coordination and a need for help with marketing and sales and farmers currently foresee no obvious way to connect the dots. But we also talked to farmers who had found ways to make their operations work for them. The greater the experience, the more refined the solutions.

Preliminary interviews with some Richmond farmers show an overall appetite for shared distribution, storage and processing and a desire for government involvement, either functionally and/or financially to help with these issues. Many of the newer farmers interviewed felt that their biggest obstacle was marketing and sales. Most small farmers would prefer to focus on farming and have someone else handle getting the product to market.

Food hubs have the farmers' interests at the centre of their mandate, allowing farmers to focus on farming and caretaking their land rather than the business of product promotion and selling.

This study also includes a discussion about the benefits and challenges of a food hub for buyers, as evidenced by research and interviews. Buyers have a desire to buy local produce, but with their own budgets and margins to consider they have to limit their buying of local produce. Cost and quality are the two biggest factors for chefs. They would be more willing to buy from local farmers if the process was easier and the costs were more in line with what they pay elsewhere.

The Richmond Food Security Society is interested in exploring a food hub as an option for local farmers to access their markets. Presently, small farms in Richmond work independently, either running Community Supported Agriculture (CSA) programs or selling at farm gates or farmers markets. There is an opportunity to further explore the feasibility of a food hub in Richmond.

1 TABLE OF CONTENTS

2 COMMUNITY CONTEXT FOR A FOOD HUB IN RICHMOND

INTRODUCTION TO THIS STUDY

This project, *Breaking New Ground — Richmond Food Hub Discussion Paper* is conducted by the Richmond Food Security Society and funded by VanCity EnviroFund and the City of Richmond. The City of Richmond recognizes farming as core to its culture.

As cited in the *Agricultural Profile Report for Richmond*, 2002, farming is identified as seminal to the history and development of Richmond, "Small farms can be valuable contributors to local agricultural production, to household incomes, and to local food supplies. Furthermore, research has shown that diversified small farms can produce as much or more per food acre than large monoculture operations."[1]

The City's 2041 Official Community Plan (OCP) adopted in 1999 established policies to enhance farming in the City by:

- Increasing farmed land;
- Identifying agricultural opportunities;
- Removing constraints to farming;
- Diversifying agriculture;
- Improving services.

This discussion paper, Breaking New Ground, started with the question: *How might a food hub support small, diversified farms in Richmond and make them more viable?* In the process of examining and deconstructing the problem, many approaches presented themselves:

- Education (both of the public on the benefits of local as well as education of farmers in farming and business knowledge)
- Technology
- Distribution
- Marketing
- Processing
- Collaboration
- Aggregation

[1] Rosset, Peter, 1999. "The Multiple Functions and Benefits of Small Farm Agriculture in the Context of Global Trade Negotiations," Policy Brief prepared for Cultivating Our Futures, the FAO/Netherlands Conference on the Multifunctional Character of Agriculture and Land. Available online at: www.worldcom.nl/tni.

With growing awareness of, and concern about, food security in North America, many initiatives have sprung up to enhance resources for growing food in smaller, local mixed-crop farms in rural and semi-rural areas as well as in urban farms. These farms are important to our region. They provide:

- greater resilience in our food system overall
- enhanced nutritional value due to fresher produce
- access to growers for purchasers who are concerned about the source of their food
- access to living classrooms for children
- keeping money in the local economy and creating local jobs
- environmental benefits such as keeping water in the local system instead of exporting it in fruit and vegetables and reducing food miles, and therefore gas emissions, through transportation.

Food hubs are one successful solution a number of regions across North America have adopted to help address these challenges and initiatives. The National Good Food Network in the U.S. (a leader on food hubs) describes a regional 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.* [2]

This paper will discuss the community context for developing a food hub in Richmond, food hub models based on current best practices, interviews with key players and governance systems, and food hub barriers.

2.0 FERTILE GROUND FOR A RICHMOND FOOD HUB

2.0.1 Agriculture in Richmond

According to the City of Richmond website, under the heading "About Agriculture in Richmond," approximately 4,993 ha (12,338 ac) of Richmond's land base, or 39% of the City, is zoned as Agricultural Land Reserve (ALR). [3] Combined with farming areas outside of the ALR zoned for agriculture by the City of Richmond, the figure is approximately 5,563 ha (13,746 ac). Of that 5,563 ha of agricultural land, approximately 3,072 ha (7,591 ac) are actively farmed by 211 farms with an annual recorded gross farm receipt of $48.6 million (Statistics Canada 2011).

Richmond farms are owned by sole proprietors (102), family farms (62), and partnerships (35). On these farms, 295 farm operators receive full-time employment. Farm operators hire an additional 26,197 weeks of paid labour each year. Richmond's remaining ALR lands are either vacant or occupied by non-farm uses such as roads, institutions, golf courses, and commercial enterprises. All of this land, however, has the potential for food production according to the city: "with improvements (mainly drainage), all of Richmond's ALR is considered to be prime agricultural land"[4]

---

[2] National Good Food Network: Food Hubs (http://www.ngfn.org/resources/food-hubs#section-3)

[3] http://www.richmond.ca/plandev/planning2/agriculture/about.htm

[4] http://www.richmond.ca/plandev/planning2/agriculture/about.htm

According to the study *An Agricultural Profile for the City of Richmond,*[5] average farm size has not varied in Richmond since at least 1986 (data unavailable before this period). Richmond's 1996 average farm size, 12.2 ha, is comparable to the Metro Vancouver and Lower Mainland average farm sizes (11.5 ha and 14.6 ha), but is much smaller than the provincial average of 115.8 ha. Small farms, those under 4 ha in size, are declining in absolute terms, but remain at approximately the same percentage of the total number of farms in Richmond (around 62%) as they did in 1961.

Farming is a tough business; but for many, it can be a rewarding one and it necessary to support the population. This research project has looked at how the valuable assets of the history and economy of Richmond, British Columbia can continue to contribute to our community. It is important to consider that there are different scales of farming – all of which are important to our food security in Canada. There are large industrial farms like those that monoculture crops in large quantities; smaller local farms that focus on a few crops and sell them mostly through wholesalers; and then there are the small-scale (< 5 acres), mixed crop farms using organic and more labour intensive growing methods, usually selling directly to the consumer. In Richmond, we see the two smaller types of farms co-existing and farming our fertile soils. This project was born from the observation that small-scale farmers in Richmond, particularly those new to the trade, were having difficulties making an adequate return. This in turn risks these farmers leaving the trade when we clearly need a succession plan for farmers who will soon retire. These small-scale farms are an important part of the overall food security of the City (and the region). In addition, there is an emerging significant demand for local foods.

Most small-scale farmers rely on off-farm incomes to survive. The USDA observes that small-scale farmers earn a substantial part of their income from off-farm sources.[6] British Columbia statistics from 2010 show that 52.6% of farmers had an off-farm job or business, which is well above the national average.[7] The statistics indicate that farming is not attracting enough new farmers to sustain, let alone grow, the number of skilled workers in the trade. According to the 2011 Canadian Census, almost 62% of British Columbia farmers were over 55 years of age. The average age of farmers in many parts of North America is reported to be 59 years.[8]

We set out to explore how we might help these farms. Over and above being important to our food security, farming is a fundamental part of Richmond's history. If Richmond's farmland is not actually farmed then it may be lost. There continues to be pressures on, and challenges to, the Agricultural Land Reserve that seeks to preserve our farmland. The farmers on this land, many of them quite young, are farming leased plots of land from 1-5 acres without much security of tenure on that land. Most embrace organic and permaculture principles in growing their crops. Their margins are small, if they exist at all. Almost every one of the farmers we talked to were also employed in jobs outside of the farm. We heard a story that some have even had to use the food bank. These are the providers of our food in the future.

---

[5] http://www.richmond.ca/__shared/assets/section66309.pdf

[6] Structure and Finances of U.S. Farms: Family Farm Report, 2007 Edition / EIB-24 Economic Research Service/USDA

[7] Popham, Lana, MLA, Chair. Opposition Standing committee for Agriculture and Food, First Report November 2015

[8] Beaulieu, Martin. Demographic Changes in Canadian Agriculture. Canadian Agriculture at a Glance. Statistics Canada. 2011.

2.0.2 Challenges for Small and Medium Sized Farms in Richmond

Currently there are fewer opportunities to develop viable farm operations on small lots, but this development will have to be a priority in order to expand the agri-food industry. As identified in interviews with local farmers, there are three key challenges for small farmers in the Lower Mainland:

1. It is almost impossible for a small farmer to survive on income from the farm. Some farmers use food banks.[9] Most have second jobs.[10]
2. Land in Richmond is too expensive for young farmers to purchase. [11]
3. Local farmers are competing with lower-cost produce grown less expensively on larger, more industrialized farms. [12]

The community of Richmond needs larger farms to help feed its population as well as to contribute to its economy. It will also need smaller producers to learn the trade and ultimately contribute to the succession of farming in Richmond. However, the smaller the farm, the harder it is to survive as a business. *How do we support these growers?* For the farmers, the difficulty is getting value for the true cost of what they produce, including their time used in marketing, transporting, and growing the produce. They normally use a number of channels per farm, including farmers' markets, Community Supported Agriculture (CSA's), farm gate sales and sales direct to restaurants, among others. A traditional commercial distributor would take 30 - 40% of what the farmer can make, if they will even deal with a smaller farm. Other methods involve time away from the farm, such as hiring staff, needing vehicles, etc (see sections 3.1. and 3.1.1 on page 9 and 10). It is widely acknowledged in our interviews that the pinch point for small farmers is distribution and marketing (see page 27).

2.0.3 Demand for Locally Produced Food

Given that nearly 3 million people live within a two-hour drive of Richmond and the increase in demand for locally produced food, it is widely acknowledged by industry, non-profit local food advocates, and government that there is a large opportunity for the direct sale of farm products within the local region from small and medium sized farms. Three key indicators highlight this:

4. The 2014 hottest restaurant trend in Canada, for the fourth year in a row, is "locally produced and locally inspired dishes." [13]
5. A 2012 survey identified 85% of British Columbians frequently buy local vegetables. [14]
6. The number of BC farmers' markets have increased by 147% in the past 6 years. [15]

---

[9] Casey Hrynkow, Personal Interview with Emi Do, Yummy Yards, Richmond, BC. September 16, 2013.
[10] Casey Hrynkow, Personal Interview with Sara Dent, Young Agrarians. August 21, 2013.
[11] Casey Hrynkow, Personal Interview with Alan Surette, Urban Edibles, Richmond. September 25, 2013.
[12] Losing our Grip 2015 Update. Cathy Holtslander, NFU Director or Research and Policy. National Farmers Union. March 2015
[13] National Restaurant Association's (NRA) annual "What's Hot" culinary forecast 2014 http://www.restaurant.org/Downloads/PDFs/News-Research/WhatsHot/What-s-Hot-2014.pdf
[14] 2012 BMO study http://newsroom.bmo.com/press-releases/bmo-survey-canadians-willing-to-pay-a-significant-tsx-bmo-201209190820156001
[15] Economic and Social Benefits of Farmers' Markets November 2012. Dr. David Connell, UNBC and BCAFM.

In 2013, as an initiative to build on this demand, the BC Ministry of Agriculture launched the Buy Local Program to "lead the agri-foods sector growth into a $14-billion-a-year industry by 2017." This is a 28% increase over the industry's 2011 gross receipts.[16]

The benefits provided by the mild climate in Richmond, the resources available, and the proximity to a large population are supportive of successful long-term agriculture in Richmond. The strength and resilience of Richmond's agricultural industry will contribute to regional food security by producing more food to purchase and eat locally; this industry will be a major economic driver for the region. Richmond has the potential to be the linking force in a much larger chain of communities nearby which are also struggling to support their farmers. All of these smaller farms can serve the Metro Vancouver area if distribution can be coordinated and made workable for farmers.

An Agricultural Profile for the City of Richmond[17] *cites* that many of Richmond's farmers engage in what is known as "direct farm marketing" of their products – they sell to consumers directly from the farm. Other farmers sell produce to the many road-side stands that dot Richmond's rural highways. There are three types of direct farm marketing in Richmond:

1. U-picks – the customer goes out into the field and picks crops, usually vegetables or blueberries, for themselves.
2. Road-side stands – the operator has erected a building (which must be licensed by the city) to sell their own produce and, often, the produce of other farmers.
3. Produce for sale – very informal, wherein the operator may have a sign up and sell produce from a garage, a front porch, etc.

In total, 76 properties in the Agricultural Viability Strategy study area have one form or another of direct farm marketing.

2.0.4 Gap in Infrastructure for Small and Medium Sized Local Producers

While the growing demand for local food is good news for the small farm industry, supplying this demand poses a challenge. As identified above, small and medium sized farms find that the lack of suitable processing, storage, and distribution creates a barrier to sell their local products even though the demand is there. This lack of infrastructure also hampers the ability for farmers to grow their business by means of expanding sales to new buyers and increasing production on their lands.

With the right investment in agricultural infrastructure supporting the direct sales of agricultural product to the local regional market, the community has great potential to increase its farm gate receipts, provide community and professional farm education resources, develop the local economy and create additional local long-term jobs by linking local products with regional markets.

2.0.5 Elements of a Food Hub Could Begin to Meet the Demand and Fill the Infrastructure Gaps

According to a report looking in to the farm economics of Richmond[18], 95% of profits earned from farmers in Richmond come from cranberry production. The City of Richmond's own section on

[16] http://www2.news.gov.bc.ca/news_releases_2013-2017/2014AGRI0022-000869.htm
[17] http://www.richmond.ca/__shared/assets/section66309.pdf
[18] http://www.richmond.ca/__shared/assets/section76310.pdf

agriculture[19] highlights that 64% of farm land is dedicated to the growing of just 2 crops, cranberries and blueberries. While the report on farm economics does highlight that a number of Richmond farms have road side stands, U-picks and attend farmers' markets, most farm production (e.g. cranberries, blueberries, eggs and milk) is sold through the marketing boards and *wholesale* as primary farm product within the local region as well as outside of it. However, other sectors generate revenue from the *direct sales* of primary and processed farm product. These growing alternatives are predominantly from small and medium sized farms within the local regional market. Sectors that involve direct sale are:

- Regional Farmers' Markets
- On-Farm Processing
- Non-Farm Processing of Local Products
- Agri-Tourism Destinations
- Value-Added Agricultural Activities
- Direct sales and marketing to wholesale customers and home delivery

Lastly on this list, some smaller Richmond farms have established Community Supported Agriculture (CSA) box programs, by which they create weekly boxes for community supporters who commit to a specific amount at the beginning of the season, thereby funding the farm for the growing season.

The Richmond Agricultural Viability Strategy (AVS) highlights the following 2021 principles that a food hub supports:

- Richmond farmers will be provided with the necessary support, services and infrastructure that are required for agricultural viability.
- Residents of the City of Richmond will be encouraged to learn more about agriculture in their city and to support locally grown agricultural products. [20]

The AVS also encourages Richmond farms to diversify their business by utilizing farmers' markets, direct sales, and home-delivery, recognizing the value added by on-farm processing, labelling products that are made/grown in Richmond and encouraging restaurants to source Richmond-grown product, all of which can be supported by a food hub.

The goal as planned in "Richmond Foodland Asset Report" is to support farming initiatives and maximize Richmond's food security. To this end some the recommendations included are to "Increase Investment in Local Markets" and "Buy Local Marketing" and to implement initiatives such as a "Buy Richmond campaign," or assisting in the development of Agricultural Enterprise Zones, local food hubs, and brokering direct sales to local restaurants, hotels, and retailers. [21]

---

[19] http://www.richmond.ca/plandev/planning2/agriculture/about.htm
[20] http://www.richmond.ca/__shared/assets/viability_strategy6314.pdf
[21] http://www.richmondfoodsecurity.org/Documents/Publications/RichmondFoodlandStrategicPlan.pdf

3 OVERVIEW OF BEST PRACTICES FOR FOOD HUBS IN NORTH AMERICA

INTRODUCTION TO FOOD HUBS

A food hub is a place that brings together a wide spectrum of land uses, design strategies, and programs focused on food to increase the availability, revenue, access, visibility, and the experience of food and farming in a local area. The United States Department of Agriculture (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.*[22]

Canadian adaptations of food hubs also include product development centres, food skills and community development centres, agri-food distribution centres, and local food retail and demonstration markets, among others.

3.0 FOOD HUB TYPES

The report *Moving Along the Value Chain: Innovations in Regional Distribution*[23] differentiates between four food hubs:

1. Retail-driven: a grocery store or distributor establishes a specific distribution network to support and source from small-scale farmers who cannot access the standard market channels. They are natural-foods grocery stores or distributors that see an advantage in supporting local food distribution to increase access to products and further differentiate themselves from their mainstream competitors. Example: La Montanita Co-op.[24]

2. Non-profit-driven: distribution is provided or arranged by farmer owned organizations, farmers' markets or other non-profits. Operating an enterprising non-profit gives the organization access to additional funding streams such as donations and community grants as well as bank loans. Examples: Red Tomato,[25] Big River Farms,[26] & Appalachian Harvest.[27]

3. Producer-driven:
    a) Collectives/Co-operatives selling to commercial buyers: a group of farmers sells to retailers or institutions, such as a farm-to-school program. Example: New North Florida Cooperative.[28]

---

[22] http://www.ngfn.org/resources/ngfn-database/knowledge/FoodHubResourceGuide.pdf
[23] http://ngfn.org/resources/ngfn-database/knowledge/Innovations_in_regional_food_distribution.pdf
[24] http://coopdistribution.coop/
[25] http://www.redtomato.org/ourhistory.php
[26] http://www.mnfoodassociation.org/content/12487#
[27] http://asdevelop.org/programs/appalachian-harvest/
[28] http://fl.marketmaker.uiuc.edu/business/421852-new-north-florida-cooperative-association-inc

b) Collectives/Co-operatives selling directly to residential customers: farmers may operate a grocery store or provide a door-to-door or neighbourhood-drop delivery service. Example: High Plains Food Cooperative [29] and Hudson Valley Fresh. [30]

c) Privately owned: enterprising farmers establish a distribution business for their own products. They may or may not include other farmers' product in their distribution. Example: Urban Digs.[31]

4. Consumer-driven: buying clubs where consumers buy food in bulk as a group from a number of farmers. In some cases, consumer volunteers divide the bulk purchase into the individual customer orders. Increasingly orders and payments are made online. Example: The Oklahoma Food Co-operative[32] and the Iowa Food Co-operative.[33]

Breaking New Ground adds three more to this list based on current research:

5. Producer-Involved Distribution Systems (PIDS): the business involves farmers directly and provides individual support to develop farmers' business acuity along with strategies that enhance the marketability of their products. Distribution systems that fall under this producer-involved category include Red Tomato, New North Florida Co-operative, the Iowa Food Co-operative, and Hudson Valley Fresh.

6. Education driven: institutions such as universities identify a need to support young and new farmers entering farming. As well as facilitating lessons on farming (including marketing and promotions), the hub can also provide a farm, distribution support, farm gate sales, farmers' market support and possibly even production facilities.

7. Product-development driven: the main need in the community/region is value added product for farms to extend their season and/or provide additional revenue. Such hubs are normally led by government initiatives due to larger capital outlay. Packing, processing, and cooking facilities are provided. In some cases, on-hand expert advice is available, including food scientists, brokering advice and business planning.

3.1 BENEFITS AND CHALLENGES OF FOOD HUBS

Food hubs, in addition to providing aspects of a traditional distribution service, are engaged in the establishment of thriving local food systems. On average, food hubs in the USA can generate over $3.7 million per annum.[34] The dozens of food hubs across North America prove that they provide key benefits to their communities. Districts with food hubs are seeing increased civic engagement and business

[29] http://www.Highplainsfood.org
[30] http://www.hudsonvalleyfresh.com/
[31] www.urbandigsfarm.com
[32] http://www.oklahomafood.coop/
[33] http://iowafood.coop/
[34] http://foodsystems.msu.edu/uploads/files/fh-survey-key-findings.pdf

opportunities.[35] They also enhance sustainability, food security, and health goals of the region by increasing the production and consumption of local food. Their largest impact is the improvement of the economy and job prospects in the region. Many studies have documented that a dollar spent on a local business yields two to four times the "economic multiplier" (the underlying source of income, wealth and jobs) as an equivalent non-local business. A study in Detroit identified that shifting 20% of food spending to local produce would increase annual (farm) revenue and create more than 4,700 jobs paying more than $125 million in wages; producing nearly $20 million in business taxes each year.[36]

The same as any other business, Food Hubs face a number of challenges. Based on the 2011 National Food Hub Collaboration survey, the most cited challenge is balancing supply and demand.[37] In most cases the demand is higher than supply, especially on certain items. While demand is high, some buyers still resist paying a premium for locally grown food or at least making long-term commitments. High demand also leads to growing pains and affects the ability of the hub to keep up, thereby outgrowing its capacity. In line with this is the ability to obtain capital to invest in new infrastructure to keep up with the growth. Those that do manage to find capital to support their growth then face the challenge of continuing to meet their social mission of supporting small and medium sized farms. Some food hubs also face the challenge of short-term credit to manage the cash flow better. This is because they pay their farmers within 2 weeks of receiving the product whereas the hub's customers pay within 6 to 8 weeks.

Other challenges cited by food hubs in the survey include dependence on volunteer labour, difficultly finding reliable seasonal and part-time staff, meeting buyer specifications for product quality and consistency, inventory management, and maintaining farm identity along the supply chain. Several food hub operators also noted the challenge their smaller scale producers face in meeting the food safety requirements of some of their buyers, as well as the potential challenge their producers will face in complying with upcoming food-safety regulations.

3.1.1 Benefits and Challenges for Producers

The challenges of producers relying on food hubs to market and sell their product include the additional cost of paying someone to do this work, the preservation of their farm's identity and brand, the potential for increased logistical complexity, and the additional infrastructure costs such as bigger trucks or the rental of temperature controlled storage. However, food hubs (unlike the traditional supply chain) have the farmers' interests at the centre of their mandate, allowing farmers to focus on farming and caretaking their land rather than the business of product promotion and selling. These benefits and challenges are highlighted in the table below.

---

[35] See, e.g.: C. Wright Mills and Melville Ulmer, "Small Business and Civic Welfare," in Report of the Smaller War Plants Corporation to the Special Committee to Study Problems of American Small Business, Document 135. U.S. Senate, 79th Congress, 2nd session, February 13. Washington, DC: U.S. Government Printing Office, 1946); and Thomas A. Lyson, "Big Business and Community Welfare: Revisiting a Classic Study," monograph (Cornell University Department of Rural Sociology, Ithaca, NY, 2001), p. 3.

[36] Study conducted by Michael H. Shuman, an economist, attorney and vice president for enterprise development for Training & Development Corp. in Bucksport, Maine. http://www.fairfoodnetwork.org/sites/default/files/Economic%20Impact%20of%20Localizing%20Detroit%20Food%20System.pdf

[37] http://www.ams.usda.gov/AMSv1.0/getfile?dDocName=STELPRDC5097957

Table 1: Producer-Involved Distribution: Benefits and Challenges for Producers

Benefits	Challenges
Farm identity and brand preservation Enhancing the farm's identity and brand contributes to product differentiation, market value and improved pricing. Preservation of each farm's brand identity can be accomplished through the distributors marketing materials and through detailed product description on invoices.	**Pricing** If ordering is centralized, then pricing for comparable products may be standardized which affects margins for individual farmers.
Increased product availability The individual farmers and the farmers as a group could decide to stagger their plantings to extend the season of agri-food products and stabilize availability, something that buyers look for when making their direct farm purchasing decisions.[38]	**Maintaining quality and food safety standards** If there is product aggregation, then the standards for the group may be different from those set by individual farmers for their own direct marketing activities.
Adaptation to changing buyer demands. The food hub can encourage farmers to fill gaps in their product catalogue, or bring in additional farmers if the gap cannot be filled by the existing group.	**Business independence** Each farmer will have established their own preferences for the crops they grow as well as when they plant. It may be challenging to change these practices.
More time to farm and build the farm business A food hub that provides transportation and delivery reduces each farmer's time on the road. Travel and delivery can take up the majority of a workday, especially if there are a number of drop-offs.	**Communication and logistics** How does the organization address the challenge of distribution logistics for multiple farmers?
Cost of distribution A distribution service allows the costs associated with storing, marketing, selling and transporting product to be shared among several farmers.	**Cost of distribution** Farmers may not pay themselves for the time they take to deliver their own product. This may mean that they do not have a true sense of the cost of doing their own distribution.

3.1.2 Benefits and Challenges for Buyers

From the buyer's perspective, there are many benefits of buying direct from a food hub, such as unique local products not carried by the large distributors (because they require special handling, niche

[38] http://www.cowichangreencommunity.org/sites/default/files/handbook-final-for-website.pdf

sizing for small peppers, cucumbers and mini summer squashes, and coordinated growing times to extend availability into the shoulder seasons). As food hubs specialize in selling and promoting products from local farms there is a greater incentive to work with farmers to ensure that their products meet the needs of buyers, including food safety standards and quality. These benefits and challenges are further highlighted in the table below.

Table 2: Producer-Involved Distribution: Benefits and Challenges for Buyers

Benefits	Challenges
Different or unique products Regular access to different products from local producers that may not be handled by large distributors.	**Seasonal Availability** Does the food hub have a sufficient range for farmers to supply product regularly throughout the season?[39]
Simplifies receiving of product One delivery truck rather than several. **Farm identity and brand preservation** Single invoice or compiled invoice identifying individual farmers.	**Transaction costs** It may take more time to order product from multiple farmers if there is no central ordering system, such as a website, or staff person at a desk. There may also be more than one invoice.
Marketing Producer-involved distributors can provide stories from the farm to help buyers promote their local-procurement purchasing program.	**Payables** Payable cycle is more likely to be shorter than the usual 30-60 days.
Pricing If there is a pricing agreement for products, it could mean a price break for buyers when local supplies are tight at the beginning and end of the season.	**Pricing** Prices could be higher when buying directly from farmers when compared with buying from a larger distributor.
Increases farm business viability By helping smaller farmers stay in business, buyers also help preserve and perhaps even deepen their competitive advantage as a source of local food.	**Quality and food safety** Buyers, especially institutions, may require HAACP (Hazard Analysis and Critical Control Points),[40] or Canada GAP (Good Agricultural Practice)[41] which smaller farmers do not usually have. Buyers rely on consistent quality.
Better service As the food hub is owned and run by organizations and/or businesses that are committed to increasing the market for local farm product, service	**Limited direct contact with farmers** Centralized delivery will mean less direct contact with the farmers, a challenge to maintaining a close relationship with where their food comes from.

[39] http://www1.agric.gov.ab.ca/$Department/deptdocs.nsf/all/cu13700/$FILE/final-group1.pdf
[40] http://www.inspection.gc.ca/about-the-cfia/newsroom/food-safety-system/haccp/eng/1346306502207/1346306685922
[41] http://www.canadagap.ca/

standards may be higher, such as regular, dependable deliveries and invoicing.	

3.2 REQUIREMENTS OF A FOOD HUB

Based on research regarding the operation of food hubs as well as conversations with food producers and buyers for the *FarmFolk CityFolk Feasibility Study*,[42] the following are some key requirements for food producers and buyers of a food hub:

Requirements for Producers	Requirements for Buyers
Ability of a food hub to align suppliers' production with demand	Consistent seasonal product availability
Near break-even cost and time benefits from delivering product through a distributor when compared to delivering individually	Easy and efficient product selection and ordering
Buyers need to consistently pay invoices on time	Consolidated and itemized invoice. One payment.
The food hub needs to establish quality standards and work with farmers to consistently provide high quality product.	Consistent product quality. Reliable delivery with little to no products missing due to shorts.
Trust and good communication between farmers, the food hub, and the buyers	
Preservation of farm identity and brand for products	
Pricing of product needs to benefit both the buyers and the producers	

3.3 KEY SUCCESS FACTORS OF FOOD HUBS

Some best practices from four food hubs analyzed in the *Feasibility Study on Small/Medium Farm Product Distribution in the Lower Mainland* by FarmFolk CityFolk are:[43]

1. Producer involvement that includes crop planning
2. Farm identity and brand preservation
3. Quality standards that included education on how to comply with these standards
4. Purchasing prices that acknowledge the cost of production
5. Aggregation services for products from a variety of farms
6. A service that uses existing infrastructure
7. A strong founder and champion

[42] http://www.farmfolkcityfolk.ca/projects/distribution/
[43] http://www.farmfolkcityfolk.ca/projects/distribution/

3.4 LEARNING FROM EXPERIENCE

We can also learn a lot about how to ensure a food hub is successful by looking at an example that ultimately closed its doors. The Grasshopper food hub in West Louisville operated from 2007 until 2013. Cash flow and lack of future investments were ultimately the cause of its failure. Grasshopper provides the following recommendations for successful food hubs:[44]

- Finding and retaining experienced staff. Their General Managers were passionate about local food but did not have supply chain experience. They burnt out very quickly. Ensuring sound plans are in place from experts in supply chain management is essential.
- Not sufficient infrastructure to meet the supply and demand from 70 farmers, 1400 customers, multiple products and 34 drop off locations.
- Never enough reserve capital to iron out kinks in the operations e.g. to invest in additional trucks.
- A strong board of directors is important
- Not enough frontend fundraising to manage the growth of the business.
- Need to set better metrics for success, better grasp of supply and demand.
- Need to focus more on core competency. What is the true objective when supporting smaller growers?
- Have high quality control and standards in place (lower standards prevented Grasshoppers growing supply to restaurants).
- Their pricing was originally too high and rigid as they tried to charge the same price as the farmers' market, which did not work for wholesale.
- Avoid competition between partnering farms.
- Plan for slow off season sales and ensure sales projections are realistic.
- Tracking data on farmer impact is important for investors and grantors.
- Market to target audience. Grasshoppers targeted their CSA to those who did not normally purchase a CSA, but take up was too slow.
- Realised that growing for farmers' markets is different for wholesale e.g. planning, production, pricing, quality and standardization.

The financial analysis and challenges of Grasshoppers food hub:

- Seasonality issues affected liquidity.
- Watch debt closely. Debt to asset ratio was too high and it was their biggest issue. In many cases, the ratio was over $2 debt to $1 assets and most cases over $1 debt to $1 assets. The benchmark should be around 50-cent debt for every $1 of assets.
- Asset efficiency was too low i.e. how much sales generated versus the amount of debt the hub accrued. The hub wants to see growth over time, as sales increase with asset value remaining similar.
- Sales to labour ratio also reflects the efficiency of the hub. Over time, the hub should be more efficient as sales increase. Grasshoppers, in some cases, saw a decrease where sales decreased per labour cost, which was due to high staff turnover.
- Early day grants masked the loss the hub was incurring while in essence the grants were not used properly to help increase sales.

[44] http://www.ngfn.org/resources/ngfn-cluster-calls/lessons-learned-from-the-food-hub-vanguard-grasshoppers-distribution

- Gross margin needed to be above 24%. In 2011, it dipped below this and kept on dropping, leaving no profit to cover expenses.

3.5 BEST PRACTICE EXAMPLES OF FOOD HUBS IN NORTH AMERICA

3.5.1 Regional Food Hubs in Canada and B.C. Lower Mainland

Over the past few years, a number of food hubs have been established across Canada, which vary in size and function. These food hubs are a recent development in Canada so it is premature to conclude whether they are successful yet. Canadian food hub examples include:

- **Real Food Connections - Fredericton, NB**:[45] operates a food retail outlet promoting local products as well as a food box delivery program. In April 2015 they opened a commercial kitchen and storage space for local growers and producers to rent.
- **Urban Digs - Burnaby, BC**:[46] grew out of City Farm Co-op in Vancouver, BC. Urban Digs is a farm that sells its products online to consumers, restaurants and retailers across Metro Vancouver, alongside products from other select local farms to offer a wider variety. Products are delivered by Urban Digs. In 2015 they opened a meat processing facility.
- **Harvest Moon Local Foods - Clearwater, MB**:[47] is a partnership between farmers and consumers, i.e. a network of food buying clubs linked to Manitoba family farmers. Consumers are given access to high quality, sustainably produced, fresh food directly from local farms. Consumers place their orders online once a month and pick up the product from set pick up locations.
- **Kitchener Market – Kitchener, ON:[48]** opened in 2004 as an indoor farmers' market in a steel and glass purpose building worth $21 million. Initially the farmers' market operated twice per week with a number of shops and restaurants open 6 days per week. Over the years, sales were slow with most of the permanent stalls closing, however the building did rejuvenate the area and the farmers' market is still in operation. More recently, they have built a commercial kitchen and invited related businesses to occupy the permanent locations. New condominiums nearby have helped increase sales, with more to be built alongside new businesses.[49]

In addition to the functioning food hubs in Canada listed above, there are several additional projects in varying stages of feasibility assessment. The popularity of developing food hubs in Canada led the McConnell Foundation to form a Regional Value Chain program in 2011,[50] as well as Food Secure Canada initializing a "food hub working group" to help share best practices between Canadian food hubs and food hub projects.[51] Below are just a few examples of food hub projects across Canada, specifically in BC:

1) New City Market (NCM) business plan and feasibility study proposing a food hub in Downtown Vancouver to provide distribution services for local farms, indoor farmers' market, commercial

[45] http://www.cbc.ca/news/canada/new-brunswick/real-food-connections-opens-new-kitchen-cold-storage-to-food-producers-1.3034026
[46] http://www.urbandigsfarm.com/
[47] http://www.localfoodmarketplace.com/harvestmoon/
[48] http://www.kitchenermarket.ca/en/index.asp
[49] http://www.therecord.com/news-story/4512136-has-kitchener-s-new-market-lived-up-to-its-promise-/
[50] http://www.mcconnellfoundation.ca/en/programs/sustainable-food-systems/regional-value-chain-program
[51] http://foodsecurecanada.org/resources-news/blogs-discussions/food-hubs

kitchen and storage.[52] More recently the project has broken up into the different components of the hub, seeing the launch of Vancouver Local Food Hub in May 2015.[53] This component is the aggregation service of New City Market.

2) Perth County, Ontario feasibility study looking at developing an agri-food distribution hub.[54]
3) North Fraser Food Hub project[55] by the Pitt Meadows Economic Development, looking at the feasibility of a distribution food hub in Pitt Meadows.[56]
4) Victoria Community Food Hub feasibility study in 2013 lead by Found Solutions.[57]
5) Cowichan Valley Food Hub which launched a pilot in spring 2015 lead by Cowichan Green Community.[58]

3.5.2 Regional Food Hubs in the U.S.A.

In the U.S.A, food hubs have been able to address the lack of distribution infrastructure and services that allow growers to take advantage of the increasing demand for local food in larger markets such as urban centred retailers, restaurants and institutions. In the U.S.A alone, there are over 300 food hubs as defined by the National Food Hub Collaboration (NFHC).[59] A breakdown of the different types of hubs, from 2011 can be seen in the table below.

Table 3: Types of Agri-food Distribution Hubs

Food Hub Legal Status	Percentage
Privately held	**40%**
Non-profit	**32%**
Co-operative	**21%**
Publicly held	**5%**
Informal	**2%**

Food Hub Market System	Percentage
Farm to Business Institution (F2B)	**42%**
Farm to consumer (F2C)	**36%**
Hybrid (both F2B & F2C)	**22%**

Based on a working list of 168 regional food hubs identified by the National Food Hub Collaboration (NFHC) (last updated Dec 1, 2011).

[52] www.newcitymarket.org
[53] www.vancouverocalfoodhub.ca
[54] http://www.perthcounty.ca/fileBin/library/economic_development/pdfs/FoodHubStudy-2013.pdf
[55] http://www.investnorthfraser.com/_Library/Documents/FINALNorth_FraserRegion_Food_Hub_-_Visioning_Session_August_2012.pdf
[56] http://www.greenchainconsulting.ca/past-projects/
[57] http://www.foundsolutions.ca/projects-log/victoria-community-food-hub.html
[58] http://cowichangreencommunity.org/cow-op-march-2015/
[59] http://www.ams.usda.gov/AMSv1.0/getfile?dDocName=STELPRDC5097957

Based on a 2014 NFHC survey, food hubs generate on average $3.7m of revenues per annum. Some of these hubs have seen double, and even triple, digit growth over the past few years. Food hub examples from the U.S.A include:

New North Florida Co-operative Farm to School Program

A Service Co-operative, established by the community, to support farm sales to schools and other buyers. New North Florida Co-operative Association Inc. (NNFC) founder Glyen Holmes worked for the USDA before he began the co-operative in 1995.[60] Many of the small scale farmers he met in his role with the USDA were missing sales opportunities, lacked the knowledge of the marketplace needed to align and diversify their crops, and could not meet USDA standards. Holmes identified the lack of infrastructure as the greatest hurdle and decided to leave the USDA in order to organize farmers based on their individual scale and capacity.

NNFC organizes all activities. The non-profit contracts a specified volume for certain crops from the farmers and trucks their product to the NNFC processing plant. Product is chopped, frozen and stored until it is transported by a hired trucker that delivers it to school district warehouses for distribution to area schools.

Iowa Food Co-operative

IOWA FOOD COOPERATIVE

A Food producer and consumer retail co-op, established by farmers for direct sale to consumers. Located in Des Moines, the Iowa Food Co-op was incorporated in July of 2008 with their first sales in November of that same year. [61] Gary Huber, a farmer and the current manager of the co-op, worked for a sustainable agriculture corporation but his is interest in ways to get local farm product to market lead him to create the Iowa Food Co-operative. Farmers in the area were selling through large distributors in hopes of reducing sales calls and the amount of time they marketed their product. They found, however, that they lost the brand identity of their farms and that the prices they were receiving were lower than they liked. After conducting research on markets and supply for local food, Huber and a small group of farmers decided on a direct-to-consumer co-op with a virtual store for online ordering based on the Oklahoma Food Co-operative.[62] They decided against a hub model seeing as food hubs do not have consumer members and consumers provide the best price to farmers. Another advantage of the model Oklahoma uses is that there is no inventory to carry over because everything is sold by the end of each market day. Farmers, food processors and consumers are all members of IFC.

---

[60] Photo source: www.rurdev.usda.gov/rbs/ezec/Pubs/noflacoop.ppt
Website: http://fl.marketmaker.uiuc.edu/business/421852-new-north-florida-cooperative-association-inc

[61] Iowa Food Cooperative: http://iowafood.coop/

[62] Oklahoma Food Cooperative: http://www.oklahomafood.coop/default.aspx

Farmers and consumers share the cost and responsibilities of operating the member-run co-operative. Products are advertised online where consumers may place orders. Then, farmers deliver the product based on the orders. The orders are packed at the market location where the purchases are processed.

Red Tomato

A non-profit Virtual Brokerage/Distributor conceived of as a way to bring Fair Trade values to local food. Michael Rozyne, a founder of the fair trade company Equal Exchange, founded Red Tomato during a sabbatical. Since its beginnings in 1997, Red Tomato has evolved through four stages to become a sustainable food trading system.

The organization is a non-profit distributor/broker that buys fruits and vegetables from 35-50 partnering farms (depending on the season and year), packages and brands the produce with the Red Tomato logo and farm name, and sells it to more than 200 retailer outlets across Northeastern USA. They hire trucking companies to deliver products to their buyers. Produce in and of itself has no brand and so packaging is essential to differentiate the product in the marketplace. Red Tomato's successful branding includes *Born and Raised Here*™, *Eco Apple*™ totes and *Eco Peach*™ baskets which display the Red Tomato logo and the name of the farm. Red Tomato coordinates the sale, delivery, pick-up, storage and distribution of the farm product by phone. Farmers deliver the product to the trucking company. The trucking company then delivers the product to wholesalers and retailers.

3.6 SUMMARY OF FOOD HUB CHALLENGES AND STRATEGIES

Even the most established food hubs express caution about the precarious nature of the food distribution business, where products are highly perishable, margins are razor-thin, and the vagaries of the weather can have a decisive impact on the success or failure of the business. The most cited challenge is balancing supply and demand. In most cases the demand is higher than supply.

The high demand also leads to growing pains as the food hub administrative and infrastructure capacity struggles to keep pace with the growth of the business. In line with this is the ability to obtain capital to invest in new infrastructure to keep up with the growth, which causes some food hubs to face the challenge of short-term credit to manage the cash flow better. This is because the hub pays their farmers within 2 weeks of receiving the product whereas the hub's customers (restaurants, institutions etc.) pay within 4 to 8 weeks. This leaves the hub in a cash flow issue, leaving them with little extra cash to reinvest in the business.

Several food hub operators noted the challenge their smaller scale producers face in meeting the food safety requirements of some of their buyers, as well as the potential challenge their producers will face in complying with upcoming food safety regulations.

As with most distribution businesses, the costs of storage and distribution are high and can only be profitably managed at a certain scale. Therefore, food hubs need to be careful with how much is initially invested in infrastructure and how much to invest as the business grows. In some cases, such as at Red Tomato, food hubs have rented or out sourced such services to help manage this problem.

An analysis of Grasshoppers food hub, as previously mentioned, provided the following key challenges and insights for food hubs:

- Finding and retaining experienced staff. Their General Managers were passionate about local food but did not have supply chain experience and they burnt out very quickly.
- Not sufficient infrastructure to meet the supply and demand from 70 farmers, 1400 customers, multiple products and 34 drop off locations.
- Never enough reserve capital to iron out kinks in the operations e.g. to invest in additional trucks.
- Not enough frontend fundraising to manage the growth of the business.
- Need to set better metrics for success, better grasp of supply and demand.
- Need to focus more on core competency. What is the true objective when supporting smaller growers?
- Have high quality control and standards in place (lower standards prevented Grasshoppers growing supply to restaurants).
- Their pricing was originally too high and rigid as they tried to charge the same price as the farmers' market, which did not work for wholesale.
- Avoid competition between partnering farms.
- Market to target audience. Grasshoppers targeted their CSA to those who did not normally purchase a CSA, but take up was too slow.
- Realised that growing for farmers' markets is different for wholesale e.g. planning, production, pricing, quality and standardization.

Financial analysis and challenges of Grasshoppers food hub:

- Seasonality issues affected liquidity.
- Debt to asset ratio was too high and it was their biggest issue. In many cases, the ratio was over $2 debt to $1 assets and most cases over $1 debt to $1 assets. The benchmark should be around 50-cent debt for every $1 of assets.
- Asset efficiency was too low i.e. how much sales generated versus the amount of debt the hub accrued. The hub wants to see growth over time, as sales increase with asset value remaining similar.
- Sales to labour ratio also reflects the efficiency of the hub. Over time, the hub should be more efficient as sales increase. Grasshoppers, in some cases, saw a decrease where sales decreased per labour cost, which was due to high staff turnover.
- Early day grants masked the loss the hub was incurring while in essence the grants were not used properly to help increase sales.

- Gross margin needed to be above 24%. In 2011, it dipped below this and kept on dropping, leaving no profit to cover expenses.

4 OVERVIEW OF LOCAL FOOD PRODUCTION, DISTRIBUTION, AND DEMAND IN RICHMOND

4.0 B.C. LOCAL FOOD SUPPLY CHAIN

In 2006 the Ministry of Agriculture released the BC self-reliance report that concluded BC farms are able to produce 48% of all food consumed in B.C. [63] While this is an estimate only and that self-reliance is not necessarily the overall objective for strengthening local food economies, it does indicate the real and potential value of B.C. agriculture to regional agri-food systems. This is a theoretical model based on overall consumption to production and food produced and consumed within B.C. is likely lower, with the majority of produce coming from California.

4.0.1 Import Export Redundancies

Canada is a net exporter of food. In 2003, Canada exported $16.8 billion worth of food products and imported $12.6 billion (Statistics Canada, 2004). While exporting Canadian agricultural products is a significant part of the Canadian economy, many of the products we export to international markets are also imported from other countries. This redundancy represents a significant leakage of value from Canadian food and agriculture sectors. A study by the Region of Waterloo demonstrates how Canada is importing many of the same foods that it is exporting.[64] Between July and September of 2005, Ontario exported $69 million in fresh tomatoes. During the same period, the province imported $17 million in fresh tomatoes. Likewise, 54 000 tonnes of apples, a fruit that grows in many of the climactic zones in Canada, were exported while 159 000 tonnes of apples were imported from other countries.[65] The Province of Ontario has passed legislation aimed at supporting local food.

Assuming that there are similar dynamics in B.C. for different crops, there is a key opportunity to redirect local supply to local demand. While agricultural exports are a key part of the regional economy, there is likely opportunity to recapture the value of agriculture products by creating linkages to regional markets and customers.

Overall, the food-related agriculture sector in the Lower Mainland plays a very active role in regional economies and has the capacity to produce more than half of the region's food needs. Additional infrastructure to create market connections between producers and customers is required to raise the level of actual self-reliance in Richmond and other areas.

[63] http://www.smartgrowth.bc.ca/Portals/0/Downloads/selfrelience2006.pdf
[64] http://chd.region.waterloo.on.ca/en/researchResourcesPublications/resources/Redundant_Trade.pdf
[65] Statistics Canada. (2009). Food and Agriculture Organization as cited in Fork in the road: Canadian Agriculture and Food on the Move. Retrieved March 10-11: http://www.statcan.gc.ca/pub/96-325-x/2007000/article/10646-eng.htm

4.1 OVERVIEW OF THE LOCAL FOOD SUPPLY CHAIN IN RICHMOND

Richmond has a rich agricultural tradition and history. Agriculture remains a vital component of land use in the city. Farmers have made use of the fertile soils to produce a wide variety of crops and livestock. As the fourth largest city in the Metro Vancouver region, Richmond is fortunate to have significant amounts of protected farmland within its boundaries. Nearly 39% (4,993 ha.) of its land base is protected by the Agricultural Land Reserve (ALR). The diversity of Richmond agriculture includes some of the following key agricultural products:

- cranberries, blueberries, strawberries, raspberries
- other fruits, and vegetables, nut trees
- greenhouses and nurseries
- eggs, poultry, and mushrooms
- honey bees and honey
- horses, hay, and pasture
- oats, corn, alfalfa

In 2010 the Ministry of Agriculture stated that 53% of Richmond's ALR land was actively being used for farming, additional to 15 non-ALR hectares which is very unusual for an urban area with land values of over $3 million per hectare. Richmond accounts for 33% of B.C.'s production of cranberries. Total berry production in Richmond accounts for 54% of land cultivated in Richmond and field vegetables at 21%.

There has been very little research done on Richmond's local food supply chain to date, which probably indicates it is in its infancy and operates on a small scale. Below is an overview of some areas of Richmond's local food supply chain:

4.1.1 Farmland Preservation Initiatives

Richmond has two significant farmland preservation areas that integrate residential development, education, and food production.[66]

1. Terra Nova Rural Park is a 22 hectares of farmland purchased by the City of Richmond for $28.5 million in 1996 that was part of a larger area being developed for residential use. It is now home to several non-profit organizations associated with the local food movement. These include:

    a. Richmond Food Security Society, which manages the Richmond community gardens, the Richmond Fruit Recovery Project, the Richmond Community Seed Library and other community based programs. The society also engages in research and policy initiatives towards their vision of a community where all people have access to healthy and sustainable food

    b. The Sharing Farm, growing food for the food bank in direct response to the needs of low income people in the city, and

[66] Landscapes of food production in agriburbia – Lenore Newman, Lisa Powell, Hannah Whittman 2015

c. The Schoolyard Society, building gardens and running educational programs for Richmond school children

2. The Garden City Lands are a 55-hectare site very close to the downtown core of Richmond, managed by the city.[67] In 2014 the city approved a preliminary plan for one third of the space to be dedicated to agricultural fields and a farm centre, with open fields, wooded areas, wetlands and bog areas occupying the rest.

4.1.2 Farmers' Markets

1. The Steveston Farmers and Artisans Market is held on specific Sundays during late summer and early fall. This market has a mix of vendors including some local produce vendors.

2. Richmond's largest "permanent" farm market (April to December, 7 days a week), Richmond Country Farms, sells the produce of its own 300 acre[68] farm as well as imported produce and some processed food.

3. The Fowl Farmer on Cambie Road sells locally grown poultry and some local produce and processed foods and products.

4.1.3 On-farm Processing

1. Three Feet Below an on-farm processing business recently started in Richmond specifically aimed at using produce from surrounding farms to add value and process fresh produce for longer-term storage. They produce jams, pickles, salsas, syrups and salsas. They also run a small CSA program.

2. Sanduz Estate Wines on Blundell Road is Richmond's only farm-based winery producing wines from grapes and other fruits as well as jams and jellies. Sanduz Estate Wines on Blundell Road produces fruit as well as grape wines and attracts visitors with sampling in its tasting room. Lulu Island Winery is also located in Richmond, but currently uses Okanagan and Fraser Valley grapes, further separating Sanduz Estate Wines from other businesses.

4.1.4 Agri-tourism Destination

1. Richmond Country Farms has grown its business into a tourist destination with its wide variety of produce almost year round and, most especially, its well-known Pumpkin Patch attraction around Halloween.

---

[67] Landscapes of food production in agriburbia – Lenore Newman, Lisa Powell, Hannah Whittman 2015
[68] Casey Hrynkow, Personal Interview with Lucas Hoegler, Richmond Country Farms, Richmond. September 16, 2013.

4.1.5 Farm Gate Sales

Many small farms offer produce for sale on site, including garlic, potatoes, berries, poultry, eggs, corn, beans, etc. An aggregate dollar figure of farm gate sales is not available. Between 10 and 20 small farmers also run CSA programs whereby families subscribe to a farm with an initial investment, usually between $600 - $800 per season. For this investment, the members of the CSA are sent boxes every week with seasonal produce from the farm. These are either picked up from the farm, picked up from a choice of other centralized locations or, in some cases, delivered to the member's door.

4.2 CHALLENGES AND GAPS FOR LOCAL FOOD SUPPLY CHAIN IN RICHMOND

With the growing interest in food which is grown using organic practices and in supporting local small farmers, there is an increase in demand for local product. Some farmers cite a growing demand that was driving their need to increase acreage for growing. However, price sensitivity in Richmond precludes some families from seeking out locally grown produce. The most common challenge heard from farmers was in accessing consumers, institutions and restaurants through advertising, marketing or sales.

With the cost of owning or leasing land in an urban/semi-rural jurisdiction such as Richmond, as well as the relatively small size of farm lots, margins are slim to non-existent for most small-lot farmers. Most of the smaller farms (<10 acres) rely on either CSA or farm gate sales, or relationships with restaurants or other buyers to get their produce to market.

Some smaller farms do not have the time nor the expertise to add the work of marketing and sales to their work of growing and harvesting crops. Traditional marketing or sales channels are not available to smaller farms because they lack the volume required and the costs to sell to these distributors cut too deeply into what are already very slim margins.

4.3 POLICIES AND REGULATIONS THAT RELATE TO AGRICULTURE AND FOOD HUBS IN RICHMOND

4.3.1 Richmond Community Plan

In 2012 Richmond City Council adopted the Official Community Plan which includes a section on Agriculture and Food.[69] The city recognizes the importance of agriculture as a food source, an environmental resource, a heritage asset and an important contributor to the local economy. Agricultural land and farming is sustained by long-term city policies that maintain an urban containment boundary that keeps residential growth outside of the ALR. In 2003, the Agricultural Viability Strategy (AVS) was developed as a long-term commitment and partnership between the city and the agricultural community to strengthen and enhance agricultural viability in Richmond. The following objectives were identified by the city to support agriculture:

[69] http://www.richmond.ca/__shared/assets/OCP_9000_agriculture34171.pdf

1. Continue to protect the city's agricultural land base in the Agricultural Land Reserve (ALR).
2. Enhance all aspects of the agricultural sector including long-term viability, opportunities for innovation (agri-industry), infrastructure and environmental impacts, including a policy to encourage value-added business initiatives.
3. To support and increase the range of urban agriculture (e.g., community gardening) and strengthen the food system beyond production.
4. Strengthen the local food system to contribute to the economic, ecological and social well-being of the city.
5. Support locally grown food, including a policy to "develop a 'Buy Local'" marketing initiative to increase the demand for locally grown agricultural products, in partnership with Tourism Richmond, Chamber of Commerce, the Richmond Farmers Institute, and others."
6. Increase access to affordable, healthy food for residents.
7. Find ways to recover food waste.

4.3.2 Zoning Policies

A food hub in Richmond requires the development of a new building or the repurposing of an existing building; both of these developments will involve zoning policies. Most land that is zoned as industrial will likely meet the needs of a food hub, unless it intends to have a direct marketing component or public gatherings. In those cases, a site zoned as commercial will be a better option. If the zoning policy of the desired chosen location does not allow for some of the functions of a food hub, then the hub can apply to have the land rezoned. Rezoning can cost a lot of money as well as time and in some cases an expert in real estate and/or construction maybe be needed to help navigate the process. Once zoning issues are overcome then building permits will be needed for any construction or contract work.

4.3.2.1 Richmond Zoning

The following is a list of websites that will be of importance in the feasibility phase of food hub development in Richmond:

a) General Information about Zoning and Development
http://www.richmond.ca/plandev/planning2/landuse/zoning.htm
The above webpage includes a Zoning Map. Find the property of interest in the Richmond Interactive Map. The search is done by address or other property identifiers. The property will be highlighted in the map and property details will display, as well as a link to the appropriate section of Richmond's Zoning Bylaw.

b) Richmond Bylaws
http://www.richmond.ca/cityhall/bylaws.htm

c) Complete List of Bylaws
http://www.richmond.ca/cityhall/bylaws/zoningbylaw8500/zoning8500PartB.htm

4.3.2.2 Agricultural Land Reserve Zoning

The following is a list of web pages that discuss ALR land and its unique set of zoning requirements:

a) Permitted Uses on ALR Land
http://www.alc.gov.bc.ca/alc/content/alr-maps/living-in-the-alr/permitted-uses-in-the-alr

b) "Permitted Farm Uses - Section 2(1) of the ALR Regulation
Farm uses are uses in addition to regular farming/ranching. These uses are for the most part directly linked to agriculture. Farm uses can be *restricted but not prohibited* by local government. Many of the permitted farm uses are subject to conditions, thresholds, or other requirements. Examples of permitted farm uses include:
   i. Farm retail sales
   ii. Storage, packing & processing of farm products
   iii. Temporary or seasonal agri-tourism activities
   iv. Land development works for farm purposes

4.3.3 Food Permits

Businesses that handle food for consumption have to apply and adhere to food permits. The following information will be important in the feasibility phase of developing a food hub in Richmond:

1. Vancouver Coastal Health: Food Permits
   http://www.vch.ca/your-environment/food-safety/permits/
2. Vancouver Coastal Health: Food Safety Information
   http://www.vch.ca/media/Guidelines_FoodSafetyManagementPlans.pdf

5 NEEDS AND CHALLENGES OF LOCAL FARMS: FINDINGS AND RECOMMENDATIONS

5.0 THE FARMER SURVEY: ASSESSING LOCAL FOOD SUPPLY CHAIN NEEDS AND CHALLENGES

The farmer survey was an initial exploration of how Richmond farmers are currently marketing their products, specifically looking at local sales as well as the barriers they are facing, and the level of interest in and reasons for selling locally. The project team used these findings to develop a pre-feasibility assessment of the Richmond Food Hub. Survey questions can be found in the appendix as well as a list of the farmers surveyed.

5.0.1 Research Methodology

The survey was done via phone and in-person interviews between the consulting team and farmers direct. Farmers were identified through the Richmond's Local Food Guide developed by the Richmond Food Security Society. These farmers were deemed to be small and medium sized farms that were already selling to the local community. This is not a complete list of all farms in Richmond but forms the basis of a growing list of stakeholders involved in the process. Overall, eight farms were interviewed for the survey. While the number of survey responses is too small to be representative of the farming community in Richmond, the survey results provide some key insight into the challenges and needs of Richmond farms.

We approached farmers as the producers in the food security equation. However, we also took advantage of community assets like the Institute for Sustainable Food Systems as sources of expertise and wisdom around our questions. In order to get some sense of the procurement side of food security we talked to two people who regularly buy local produce on a larger-than-household scale.

Farmers were asked about the basic nature of their farm operations, their preferred methods of sales and distribution, the level of interest in and barriers limiting local sales, and additional services they may need to support their businesses. A summary of survey findings for each question is presented below.

5.0.2 Survey Findings

1. **"What are your current channels for product sales?"**

Many farmers sell through a variety of channels. These may be a combination of CSA (Community Supported Agriculture), farmers' markets, direct to restaurants, farm gate and others. According to many farmers, a passion to buy locally and to support local farmers is common among all of their customer groups. One produce farmer chooses to deal with restaurants almost exclusively. The rest choose a mix of options. The level of sophistication seems to be in line with the experience level of each farmer and their years of learning to adapt as they go along.

CSAs are one of the most established ways for farmers to ensure some cash flow and plan their crops accordingly. Although the interview sample was small, those who chose to run CSAs sold about 50-60% of their produce through their CSAs. Newer, smaller farmers found running CSAs more challenging or simply chose not to, but would attempt it in the the future.

A popular channel for Richmond farmers is gate sales and in some cases farms have an actual store. Depending on the rest of the farm's business model, gate sales can range from 10% to 85% of total sales. The ones we spoke to have a vision to grow their gate sales as they retain a larger margin than they would through wholesalers. Most farm stores also sold products from other Richmond farms and in some cases even wider still. The stores or gate sales are predominantly open during the growing season with most shoppers from Richmond and surrounding cities. Farms have seen an increase in sales of their stores and especially an increase in the demand for local products. However, securing and having local product delivered to their store on a consistent basis is challenging. Some farms also stated that gate sales were complementary to a CSA program, even ones in which multiple farms participate.

2. **"Do you [the farmer] need additional tools or services to develop these channels?"**

Many of the newer farmers interviewed felt that their biggest obstacle was marketing and sales. Due to either a lack of time, being ill equipped or trained for marketing, or both, many said that they would prefer to focus on farming and have someone else handle getting the product to market. One farm, Sweet Digz Farm, is run by an energetic, enthusiastic couple who make perfect ambassadors for local farms. Even they, however, expressed that it can be a challenge having to divide their time between growing good food and selling it. Even in the case of more established channels, the organization of orders and delivery is a big challenge. One farmer suggested a liaison between farm and table for restaurant sales. Aggregating and selling cooperatively to restaurants, where planting and harvesting is planned with the restaurants was suggested as a way to start small. Starting small with a food hub was emphasized.

For the farmers who are considering either starting or growing their CSA businesses next year, organization will be their challenge. Demand is not cited as being an issue. Word of mouth and enthusiasm for supporting local farmers who are growing organically seems to drive as much demand as most farmers can meet.

One small, new farmer we interviewed lamented not having electric power to his leased land, which precludes early seed starts for him. He would also ideally like access to cold storage. Most of the small produce farmers we spoke to mentioned needing cold storage close by. One mentioned that there had previously been some availability of cold storage at the Richmond Sharing Farm, but he was unsure that it was still available. Another farmer stated that the lack of access to a commercial kitchen was the primary missing tool in their arsenal and others mentioned that it would be a very valuable resource.

Land is generally the largest issue for all farmers. It is their number one concern in most cases. Security of tenure as well as the cost of water are either current or potential concerns. One farmer we interviewed moved to Surrey because his rent was raised significantly last year, and the landlord required that it be paid all up front. Access to affordable arable land and keeping farmland active should be made a priority in the city in order to keep farmers farming here.

Continuing education was mentioned in terms of either improvement of basic business skills or even farming skills. One very experienced farmer suggested a winter conference to cover some of the regular upgrading of education. One solution suggested was the ability to share information and experience between local farmers, which already happens but could be organized more formally. Business planning mentorship, accounting and bookkeeping advice and help were on many farmers' wish lists.

A few farmers mentioned a desire for government involvement, either functionally and/or financially to help with their issues of distribution, storage and marketing. They value their ability to sell at roadside and want to see this protected. The cost of potable water in Richmond is significant to farmers using organic practices and it was suggested that the city offer, as other jurisdictions do, a discounted agricultural water rate to offset this cost. To help with gate sales and farmer stores, it was suggested that having a truck to go around picking up local product and delivering it to stores on behalf of farmers would be an asset.

One farmer suggested having an "umbrella brand" for their farms to help get them exposure, as well as add credibility to their farm and product. The same umbrella brand could also act as a mentor organization supporting young farmers and sharing information amongst local farms. On the flip side of this, some farmers have worked very hard to establish relationships — their own brands — with larger customers and fear losing this in an aggregated model.

3. **"What are your considerations/concerns for current collaboration with other farms and future collaboration?"**

Response to this question was quite mixed. Some farmers were reasonably enthusiastic about collaborating with other farmers, processors, or retailers. But we did encounter some cynicism around co-operative and hub models. There was a tone of jaded pessimism among more experienced farmers who seemed to feel that they had "seen it all" in cooperative or hub models and so, they did not hold much hope for their success.

It is important to note here that we learned of an attempted food hub in Richmond in 2014. City Farm Co-op was formed by a group of younger farmers to do collaborative crop planning and marketing. They secured a donated warehouse space for distribution. Unfortunately, the enterprise failed within a year, which is common in North America. Although an analysis of the reasons for its failure should be done formally, we understand from our research that the lack of experience and inability to supply enough produce to meet targets, as well as the loss of their organizer, were factors.

On a small scale, Sweet Digz Farm has been open to selective collaboration and is currently trading produce for processing with Three Feet Below, part of the Richmond Farm School Incubator Program, so that both have varied and interesting CSA boxes to offer. Sweet Digz Farm also reached out to an organic retailer in Steveston, where they set up their own market on weekends. Another farmer spoke of sharing produce with other farms to do the same thing. He also suggested cooperating on seed buys to reduce the cost through an economy of scale.

4. **"What new sales channels that are being considered, if any?"**

The idea of a hub-like model was appealing to some farmers. However, they cited a number of challenges: coordination of crops, fairness of contributions and sharing of revenues from CSAs. Processing is important for solving this. The idea of making beet chips, to processing juices, canning, etc., farmers saw these as a way to move their produce up the value chain. Having a commercial kitchen and storage were high on a few lists as being the best way to create new business with better margins for farmers.

5. **"Are there current assets that the community already has for supporting small farms?"**

One of the best assets for growing the trade of farming in Richmond is the Richmond Farm School run by Kwantlen Polytechnic University.[70] And, even more important, is the Incubator Program run by the school that allows young farmers to test their skills with guidance and mentorship before striking out on their own. Some of the farmers we talked to are instructors and mentors through the farm school, keeping the community close and communicating. Some existing, older, and larger farms currently provide some sub-leases of land to newer, smaller operators. This support within the farming community was valued.

The Richmond Food Security Society was mentioned a number of times as being supportive of small Richmond Farms. The support of VanCity was also mentioned, both ethically and financially. Richmond Farm School was mentioned by a number of younger farmers as being critical to the growth of the trade. Many students have become employed in contracts or ongoing jobs because of their training and exposure to the local agricultural community. Small scale agriculture (and non-profit The Sharing Farm) have gotten a boost from this labour pool, but more importantly it has been a chance for the students to gain more experience directly because of their time with the Richmond Farm School.

6. **"Have you ever considered collaborating with other farms to access these services or tools either by sharing costs or amplifying the work?"**

This is being done in a number of ways by some farms, either by sharing information or services with one another. Sharing of tools was not mentioned by anyone, but the community is generally very supportive of one another overall. The Richmond Farm School's Incubator Program operates on a sharing model with tool sharing, as well as mentorship. One farm cited that they welcome informal help from a larger, much more established farm growing only a few crops.

7. **"Have you looked at, or would you consider, other sales channels?"**

Many considered moving up the value chain as a way to access new or better markets. Growing higher value salad mix, to making chips, sauces, pickles, jams all came up as ways to do this. It was also suggested that Richmond did not have enough, or frequent enough, farmers markets and that this would increase their access to buyers. Younger, newer farmers are experimenting with channels that might work best for them: one was going to introduce a CSA program in 2016, for instance. We observed a group that, as a whole, has its eyes open for opportunities.

8. **"Have you been involved in discussions with other organizations (e.g. farmers' markets, other farmers, Kwantlen Polytechnic University) on food hubs, food distribution, farmer**

[70] The Incubator Program is an incubator farm on a land managed by Kwantlen Polytechnic University (license to occupy). Grads of the school have up to three years for up to ½ an acre, evaluated at the end of every year, based on the condition of the land, to farm there.

collaboration etc. before?"

A number of farmers have reached out to other organizations looking for knowledge and answers. One farmer mentioned Vancouver Urban Farming Society meetings. Another volunteered with Fresh Roots in Vancouver to be able to ask questions and learn. Another was part of a conversation when the New City Market was happening in Vancouver but the red tape made them lose interest. This farmer also preferred not to collaborate with a larger organization and wanted to know who they were working with personally.

9. **"What challenges are small farms or new farmers facing in Richmond that we have not already discussed?"**

Farming is not for everybody. It is hard, margins are minimal and sometimes the lifestyle is not what young farmers imagined. More than one farmer mentioned land access. They said that what you put into the land will be lost unless you can renew leases. They need long-term stability. Another farmer said that it would help to have one central person in the city who could help, such as an agricultural officer.

5.0.3 The Farmer Survey Conclusion

Farmers are employing dozens of creative solutions for growing the right crops, adding value and creating convenience for buyers in an attempt to connect consumers with the food they grow. Many cite marketing and sales skills as their biggest challenge. They need help to connect what they grow to the people who will buy it. A sense of community with the buyers of their produce is important. They want access to secure land leases or, even better, ownership of land; an affordable commercial kitchen; distribution; and support from the community. They need equipment, ongoing education and more places to sell what they produce. They generally seem quite tireless in their pursuit of the right mix of independence, support and collaboration to make things work. There are statements that point to a desire for something like a place where they can clean, distribute, and process their produce in a cost-effective and efficient way.

From our discussions with some local farmers, we discovered that there is a lack of coordination and a need for help with marketing and sales and farmers currently foresee no obvious way to connect the dots. But we also talked to farmers who had found ways to make their operations work for them. The greater the experience, the more refined the solutions. Preliminary interviews with some Richmond farmers show an overall appetite for shared distribution, storage and processing. What that should look like is up for further discussion (most importantly with the farmers themselves), along with identifying if there is enough volume in the small Richmond farms to support a food hub. Do we need to look outside political boundaries and consider including Delta and Ladner in a hub? Do we need to focus on specific markets for a food hub to supply? What does good food really cost and can our community sustain that cost?

The idea of a food hub is a notion that makes sense to an outsider, but not necessarily to every farmer. The pinch point for younger, small-scale farmers is often lack of skills and/or time for marketing and sales. They also realize the limitations of their output – knowing that processing their harvests for storage or to move food up the value chain would work to their advantage. But they want to farm and need time to learn to do so well. Common to both farmers and procurers is the frustration of having to run around, pick up and deliver and to simply find each other. Many experienced farmers expressed a desire for access to shared facilities like cold storage and a commercial kitchen.

A food hub may be an important tool in supporting a resurgence in Richmond's farming culture, but what we learned is that any solution that requires cooperation needs to come from the farming community itself. We heard this loud and clear. So, it is important that we listen to Richmond's farmers, new and established, and ask them not, "how can we make a food hub work," but "how can we help make you successful". These are passionate people. They want to succeed in growing good food. They care about our community.

5.1 THE BUYER SURVEY: ASSESSING LOCAL BUYER NEEDS AND CHALLENGES

This survey was an initial exploration of the needs and challenges of wholesale buyers (e.g. restaurants) of local food produced in Richmond. Survey questions may be found in the appendix as well as a list of buyers interviewed.

5.1.1 Research Methodology

The buyer survey was done via phone interviews between the consulting team and buyers. Buyers were identified through relationships with local farmers and community groups and the fact that they currently buy from local farms. Overall, two wholesale buyers were interviewed for the survey. While the number of survey responses is too small to be representative of the wholesale buying community in Richmond, the survey results provide some key insight into the challenges and needs of such buyers.

The two buyers were asked about their current local food buying patterns, relationships with local farms, some of the challenges they faced and ideas around how they could be better supported to buy more local food. A summary of the survey findings is presented below. With only two interviews with buyers, we can only extrapolate how their responses might expand to greater numbers. Chef Ian Lai is the Consultant and Chef Instructor at the Northwest Culinary Academy of Vancouver. Karen Dar Woon is Chef and Procurement Person for Community Meals at Gilmore United Church. She runs a weekly meal program there.

5.1.2 Survey Findings

1. "How do you currently acquire local produce from small farms?"

Both buyers expressed a desire to buy locally, but with varying ability to do so based on selection, time and cost. One chef purchased only 10% locally, from farmers' markets as well as retailers; the other was able to manage 35-45% from local farmers. One had the advantage of using The Sharing Farm in Richmond as a source of most of that quantity.

2. "What tools or services would help you develop these channels?"

Price and convenience were important to both of these chefs. If the local produce could be had at the same price (or perhaps a closer price), they would prefer it. The other issue was simply ordering and picking up or having food delivered in a "just-in-time" scenario. In the case of Gilmore United, there is very little storage space, so produce needs to arrive only when needed so that it does not require storage.

3. **"How would those tools and services advance your commitment to local purchasing?"**

In a perfect world, both of these chefs prefer the freshness and retained nutrition of local produce. However, the additional aspects of lack of consistency of supply as well as standardization of size and quality also matter to chefs and are another barrier.

4. **"What assets does the community already have for supporting your purchases from small farms?"**

No responses.

5. **"What food acquisition challenges are restaurants facing in Richmond that we have not already discussed?"**

Both chefs mentioned the lack of understanding of the cost of food among consumers. They both felt that consumers need to understand the value of food and pay more for local. Realistically, however, they realize that it is a small market that will overlook the additional cost and that most restaurants (and families) have to work within budgets.

5.1.3 Buyer Survey Conclusion

Buyers have a desire to buy local produce, but with their own budgets and margins to consider they have to limit their buying of local produce. Cost and quality are the two biggest factors for chefs. They would be more willing to buy from local farmers if the process was easier and the costs were more in line with what they pay elsewhere.

5.2 THE ACADEMIC SURVEY: GUIDANCE FROM THE EXPERTS

This survey was conducted to get the opinion of experts who can see the farming and food story in Richmond from a holistic viewpoint. We wanted to look at the needs and challenges of the food supply in Richmond as a whole and have a third voice for consideration.

5.2.1 Research Mythology

The survey was done via phone and in-person interviews between the consulting team and experts direct. These experts were identified through relationships with Kwantlen Polytechnic University as well as the local community. Each is involved in a unique way with food and food culture in Richmond. We spoke with Dr. Kent Mullinix, Director of the Institute for Sustainable Food Systems at Kwantlen Polytechnic University; and Wallapack Polasub, lead Research Economist at the University's Faculty of Science and Horticulture; as well as Kevin Huang, Co-Founder of the HUA Foundation. The HUA Foundation's mission is to support Chinese-Canadian youth to participate in social and environmental change by creating programs that empower them to be better engaged and take leadership roles in their local communities. The Foundation runs a unique program called The Choi Project aimed at putting "healthy, local, real food back on the Chinese dinner table." The survey results provide some key insights into the challenges and opportunities in the Richmond local food system.

5.2.2 Survey Findings: Kent Mullnix and Wallapack Polasub

1. "What exists in the way of distribution channels for small farmers in Richmond at this time?"

Kwantlen Polytechnic is currently looking at food systems including distribution in the Southwest British Columbia region to learn what approaches exist. They are examining what types of distribution are possible for smaller farmers: farm gate, CSA, famers' markets, multi-farm (as CSA or aggregators selling direct to consumers), food hubs (no evidence of this in the region), as well selling to a distributor. In the case of the Okanagan, they know that fruit aggregators sell directly to consumers (consumers place orders on line or by phone). That is not happening here. There are no food hub approaches being used in Richmond.

2. "What about a food hub in Richmond?"

As far as food hubs are concerned, it is known that food hub functions are often privatized to *their* advantage and not the farmers'. If their objective is to get as much of the food dollar as possible, the whole system will collapse. It has to be generated and run by the farmers themselves in some manner. The U.S. Association of Family Farms has designed a value chain system, all working in cooperation with other elements. In their system, everybody's books are open to everyone else, and everyone involved only earns their fair share. Everyone in the system has to agree that maximum profit is not their primary objective.

What farmers produce has a $0 value before it is sold. Kent said that he is not sure if there is even a critical mass of small-scale producers that could make it work in Richmond. Even if we include Delta and Ladner. We need an incremental strategy to build up producers, distribution, producers, distribution.

Food hubs used to be called "terminal markets." In this market, farmers would bring their own produce there. The Ontario Food Terminal still operates this way. They exist as a public service, and do not have the intent to maximize profit. What about regional terminal markets? Would this be better than a food hub? Look at food aggregators and what they deliver to neighbourhoods.

One thing that strikes Kent is that when we tackle this challenge there needs to be a multitude of options, aggregation, farmers' markets etc. And the public needs options for how to get their food. We have to recognize that too many options may create a mess. Farmers will not coordinate crops. He says do not even go there. Some crops are much more profitable than others. We don't want to get into single crops but start on a smaller scale. We want to retain entrepreneurship and ingenuity but we want to modify failure equating with economic ruin. People work hard not to fail, not necessarily working hard to succeed.

3. "How can local governments be of help?"

All the work on food systems in Ontario and some other provinces is funded by the Ministry of Agriculture. They are funding research projects. BC is not doing that. Kwantlen knows of a few farmers. They posited a CSA style box in their first year, an 8-week pilot. It sold out in a week. There is a demand. It's a matter of solving how to distribute it. Urban development is pushing green grocers out. We want to see them stay. Where can residents get food that's healthy for them.

5.2.3 Survey Findings: Kevin Haung

1. "How is it different for Chinese Canadians to access culturally appropriate food?"

There has not been much of a focus on it. They're pushing in-season, proper labelling for local growers. "Culturally appropriate" food is not being talked about in this community. The system is robust and works well, but locally growing food in a sustainable way is another thing. HUA Foundation looked at Chinese farmers aggregating (food hub). But the farmers don't want to compete with green grocers in the neighbourhood. Oddly enough, Chinatown itself has a looming threat of becoming a food desert. HUA Foundation is still building relationships with green grocers and restaurants. Some are trying to focus on in-season foods. They do not want to share their contacts with Kevin as of yet. They're insular. They are *Guan Xi*. Relationships take precedence over everything due to a long history of external forces of systemic discrimination, racism, language barriers, etc. shaping how they operate their businesses. You have to build *Guan X*i first. We are living in a system that established in the 1920's. We can't push for change if we don't recognize and proactively try to correct the underlying challenges that separates the parallel distribution systems. Right now, people feel that things are working fine and there is no need for change.

We know that there is demand for local and sustainable foods among Chinese community, and we feel that it needs to be discussed more in media and news. This community is beginning to value local food because of food scares (quality and pesticides) in China. I think there are some people in the Chinese community willing to pay more for local food, but some that would not see that value.

5.2.4 Academic Survey Conclusion

With only three interviews, this section is by no means exhaustive. However, with a resident expert in sustainable agriculture in Richmond and a foundation dedicated to reaching out to the Chinese community in the Lower Mainland, there is value in their opinions. We heard the need to ensure:

- there is enough produce to keep the hub running
- an adequate distribution system
- farmer ownership and not-for-profit
- professional management of the hub
- start small

To involve the Chinese community, which constitutes the majority of the population in Richmond, we asked what the demand was for local food as well as what the potential involvement might be for Richmond's Chinese farmers. What we learned is that there is a strong demand for fresh, locally grown food in the Chinese community. However, the community has well-established channels of distribution, which are working well, so they may not see the value in participating in a food hub. Their involvement in a food hub would require further discussion.

6 DISCUSSION CONCLUSION

The challenge of connecting local food producers and consumers is complex. This ambitious feasibility study outlined, through research and direct interviews, the many opportunities and challenges in building a robust local food system in Richmond, BC. Farmers are struggling, and need support with infrastructure such as processing and distribution services. Restaurant buyers want to buy locally, however cost, need for variety, coordination and transportation are challenging. Experts tell us food hubs are a possible, yet challenging solution and that in order to be successful they need careful planning and strong engagement from both producers and consumers.

Food hubs are one model that are being used to address these complex issues, and there are a range of styles and sizes. While more common in the US than Canada, there is a growing set of best practices which are successful in supporting small farmers with marketing and distribution and could support the development of a food hub in Richmond. However, this study started by looking at the food hub as a model to solve the challenge of connecting producers and consumers. Research revealed that an alternative and perhaps more robust approach could be to engage with farmers and buyers to find out what they need and exploring solutions from there. During the course of the project, researchers identified some key areas for further exploration that will help inform whether or not a food hub is indeed the best solution for Richmond, or if smaller, simpler options may work better.

6.0 AREAS FOR FURTHER RESEARCH

This study provided background information and a preliminary needs assessment for a food hub in Richmond. Many questions for further study were identified, including:

- Is a food hub indeed the right solution to the challenge of connecting producers and consumers in Richmond?
- Is there enough production capacity in Richmond to support a hub, or should we look including neighboring municipalities?
- Is there enough consumer demand, from individuals, retailers and institutions to support a hub?
- If a food hub is the right solution, who will champion it? Which model will suit Richmond best?

6.1 NEXT STEPS

For Richmond Food Security Society (RFSS), the instigators of this research project, the next step is to share these results with the community, as well as the City of Richmond and Vancity. RFSS has several projects underway for 2016 with the goal of building a strong local food system, including maintaining a local food guide, organizing a week long local eating challenge, coordinating a public seed library and supporting Richmond Community Gardeners.

Next steps in exploring the feasibility of a food hub in Richmond include:

- Engaging with important stakeholders, such as the Richmond Farmers Institute, Agricultural Advisory Committee
- Exploring potential champions
- Considering if the needs of farmers could be met through solutions other than a food hub? For example, are commercial kitchen spaces available they could use for processing?
- Connecting further with folks involved in City Farm Co-op, who attempted to establish a food hub in Richmond already
- Connect with groups across the lower mainland working on other food hub projects, Famers Market and sharing best practices
- Facilitating a series of community engagement sessions to explore the feasibility of a food hub and the desire to move forward
- Design a methodology to collect data to determine if there demand and capacity to support a food hub

Supporting farmers and working towards a heathy, sustainable food system in Richmond will require a multi-faceted approach from a range of stakeholders.

7 APPENDIX

7.0 THE FARMER SURVEY QUESTIONS

1. Welcome and introductions.

2. Orientation about this food hub study.

3. How do you currently sell your products (wholesale, retail, farm gate, farmers' market, CSA)? In each case try and gather further information such as:

    - % of overall sales
    - Key customers
    - Average order size
    - Challenges
    - Opportunities

4. What tools or services would help you develop these channels? And provide examples if they need encouraging e.g. website, invoice tracking, marketing/sales, truck/distributor, storage, more land, processing equipment.

5. How would they help your business?

6. Have you ever considered collaborating with other farms to access these services or tools either by sharing costs or amplifying your work?

7. Are you looking or would you like to enter new sales channels? (e.g. processed foods). If so, which ones? *(Try and find out more info here e.g. what is stopping you or what do you need to make that step? Are others doing it well? If so who and how?)*

8. Have you been involved in discussions with other organizations (e.g. farmers' markets, other farmers, Kwantlen) on food hubs, food distribution, farmer collaboration etc. before? If so what? *(If yes, try and get an understanding of what the discussions were about, who was involved and any outcomes. Also try and understand the farmers' opinion on such initiatives).*

9. What assets does the community already have for supporting small farms?

10. What challenges are small farms or new farmers facing in Richmond that we have not already discussed?

11. How can a project like this help them?

12. Who else should I speak to regarding this study?

7.1 THE WHOLESALE BUYER SURVEY QUESTIONS

1. Welcome and introductions.

2. Orientation about this food hub study.

3. How do you currently acquire local produce from small farms? In each case try and gather further information such as:

- % of overall purchases
- Key suppliers
- Average order size
- Challenges
- Opportunities

4. What tools or services would help you develop these channels? (provide examples if they need encouraging e.g. website, invoice tracking, on-line ordering, farmer meetings, just-in-time delivery)

5. How would they advance your commitment to local purchasing?

6. Have you been involved with discussions with other organizations (e.g. farmers' markets, other farmers, restaurants) on food hubs, food distribution, farmer collaboration etc. before? If so what? *(If yes, try and get an understanding of what the discussions were about, who was involved and any outcomes. Also try and understand the farmers' opinion on such initiatives).*

7. What assets does the community already have for supporting your purchases from small farms?

8. What food acquisition challenges are restaurants facing in Richmond that we have not already discussed?

9. Who else should I speak to regarding this study?

7.2 LIST OF FARMERS, BUYERS, AND ACADEMICS THAT WERE SURVEYED

7.2.1 Farmers

Kareno Hawbolt and Kimi Hendess: Sweet Digz Farm

Humraj Kallu: Can-West Farms

Miles Smart: Cherry Lane Farm

Adam Soltys: Urban Edibles

Bill Zeilman: W&A Farms

Partaking in the Richmond Incubator Farm Program:

Ashala Daniels: Three Feet Below

Kristjan Johannson: Sea Tilth Farm

Paul Mangus: Carrots, Beets Co.

7.2.2 Buyers

Chef Ian Lai: Consultant and Chef Instructor at the Northwest Culinary Academy of Vancouver

Karen Dar Woon: Chef and Procurement Person for Community Meals at Gilmore United Church

7.2.3 Academic/Expert

Dr. Kent Mullinix with Wallapack Polasub: Kwantlen Polytechnic University's Faculty of Science and Horticulture

Kevin Huang: Co-Founder of the HUA Foundation

8 ACKNOWLEDGEMENTS

The authors of this report wish to thank Kimi Hendess and Kareno Hawbolt for their generosity with time and knowledge of the history and key people in the current Richmond farming community. We would also like to thank Dr. Kent Mullinix for making himself so available and for giving us a broader view of the current farming environment in the City of Richmond.