



# Delivering Value: Best Practices for Alternative Models of Sustainable Regional Food Distribution in Canada

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# ABSTRACT

Canadian food producers with annual gross receipts totaling less than \$1 million CAD and small to medium-sized farms find it difficult to compete with the conventional food system on price and availability (Stott et al., 2014). The lack of suitable distribution services and sales channels to urban markets (population greater than 100,000 persons) within their region has been a barrier for these producers (Hild, 2009). As a result, such producers are partially or fully excluded from the conventional supply chain and access to local food options is hampered.

In the province of British Columbia, as elsewhere in Canada, local producers are challenged to meet the increase in demand for locally and sustainably produced food (Sott et al., 2014b). Challenges in managing the aggregation, marketing and distribution (purchase, storage, transportation and resale) while also scaling up production create additional costs, concern for preservation of producer identity and the potential for increased logistical complexity (Deloitte, 2013). Chefs, consumers, retailers and processors have indicated that the gap in distribution is a barrier to buying local food (Stott et al., 2014b). Analysis of the marketing and distribution activities of successful sustainably-minded regional distribution networks in British Columbia reveal shared best practices that deliver value to producer, buyer and consumer.

Primary research supported the following best practices found in secondary literature: Product quality is defined by consumers and paramount to meeting purchase expectations; product differentiation adds value, increasing price premiums for all those involved in its trade; distribution & logistics supports are necessary for producers; and fair & stable pricing enables long-range sales planning and reduces switching costs.

# FOREWORD

A major objective of my plan of study was to study regional food distribution in Canada. As part of my area of concentration, I explored the variety of challenges that the market is facing in distributing food from producers to urban markets within the same region.

By having focussed much of my field experience credits on the problem of local food distribution, I became much more engaged and experienced in the science of supply chain management. By gaining personal experience in doing business with and coordinating products from local producers for sale in regional markets, I found myself particularly drawn to the approach of value chains. Value chains uphold principles of fair socioeconomics and sustainability - principles that are often overlooked in industrial supply chain transactions. One might even say that value chains are a series of commercial/business transactions that embody traits of basic human decency and integrity. In many ways, this statement is true.

These debates are of great interest to me as it is obvious that food affects us all and touches upon a wide range of issues, including health and nutrition, economic development, cultural identities, food insecurity and environmental degradation. While these issues are often addressed in silos, it is obvious - in the case of food - that they are interconnected. At the same time, with the precariousness of interconnected global markets, the economic implications of over-dependence on imported foodstuffs are ever the more so obvious. This has created opportunities for increased local food production and competition for local food products (Benson et al., 2016) and makes this topic relevant today.

In the face of international economic precariousness, high food insecurity, growing rates of diet-related ailments and serious environmental threats, I chose to do a major paper because I wanted to better inform and align my efforts in my supply chain career towards effective and strategic work to address these issues. Creating sustainable food systems

means amending all of the processes that are a part of providing food to consumers: the growing, harvesting processing, transportation, marketing, selling, consumption and disposal of food. The first component of my plan of study attempts to address these processes through courses, such as Food, Land and Culture and a “Certified Local Sustainable” Individual Directed Study, which focused on sustainable food production and land use. Field studies, such as my work as an independent operations consultant for SiembraViva in Colombia, a Food Hub Operations Engineer for Good Eggs in San Francisco and conducting the interviews leading up to this written paper, focus on the distribution of food from “certified local sustainable” food producers to the consumer. The second component of my plan of study builds on the first, by explicitly studying food system regionalization. Initially, as an urban planning student, my objective was to explore the regionalization of food systems as a successful outcome of the regional planning process. However, in later years, as I moved away from policy-based approaches and the urban planning designation to market-based approaches, the objective of my paper shifted to gaining a practical understanding of the demand- and supply-side market factors that promote the regional distribution of food to urban centres in Canada, with values-based principles of operation.

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# TERMS & ABBREVIATIONS USED IN THIS PAPER

## Abbreviations

British Columbia (BC)  
 CanadaGAP (GAP)  
 Canadian Organic Trade Association (COTA)  
 Certified Organic Associations of British Columbia (COABC)  
 Community Supported Agriculture (CSA)  
 Country of origin (COO)  
 Direct store delivery (DSD)  
 Enterprise resource planning (ERP)  
 First-in, first-out (FIFO)  
 Food and Agricultural Organization (FAO)  
 International Commercial Terms (Incoterms)  
 Just-in-time (JIT)  
 Less-than-truckload (LTL)  
 Minimum order quantity (MOQ)  
 Preventative Control Plan (PCP)  
 Purchase order (PO)  
 Quality control (QC)  
 Safe Food for Canadians Act (SFCA)

## Terms & Definitions

**Accessibility** - where we live and our individual ability (whether that be physical, structural and/or economic) to access food.

**Actor** - any participant involved in the trade of food within a supply chain.

**Aggregation** - is the consolidation of products sourced from multiple growers to generate volumes compatible with the wholesale market.

**Availability** - goal of supply chains is to provide the product on time at location, based on customer demands, and at minimum cost while maintaining desired service levels.

**Capacity** - measured in quantity of output, capacity is the sum total of effort of all resources (capital, implicit, human et al.) required to produce the goods in question.

**Consumer** - the end buyer of food, for individual consumption in order to sustain life.

**Conventional** - see **Industrial**.

**Differentiation** - the ability to provide unique and superior value to the buyer in terms of product quality, special features and/or after sales service.

**Distribution** - the movement of goods from the source to the final consumer and vice versa, by a specific transportation method.

**Industrial** - used in this paper to refer to the agricultural system of chemically-intensive food production developed post World War II, characterized by the practice of growing single crops (or raising animals) intensively on a very large scale. This style of monoculture relies heavily on chemical inputs because the production facilities are highly susceptible to infection, pest invasion and nutrient depletion.

**Marketing** - the broad series of actions required to promote and sell product. This may include: market research; selection of sales channels; advertising & sales calls.

**Producer** - used in this paper to refer to the businesses and/or organization of people who grow/raise/produce the finished food product (does not include input providers).

**Regional** - products grown or produced within a fixed distance of where they are sold. For the purpose of this paper, this distance will encompass any food that is grown and sold within the borders of the same province of Canada.

**Retailer** - a commercial business that sells food to the end consumer, for individual consumption.

**Storage** - the activity or location of holding food temporarily, with the purpose of maintaining product quality, until the transportation/sale is ready.

**Sustainable** - for the purposes of this paper, the operationalized concept of sustainability refers to actions that move society towards ecologically sustainable patterns of production, distribution and consumption (Affolder, 2012).<sup>1</sup>

**Urban centre** - as defined by Statistics Canada (2016), a large urban population centre, consisting of a population of 100,000 or more.

**Value Chain** - a system of businesses, people, resources and activities involved in producing a product required by the end consumer. Inherent in the name, the purpose of *value* chains is to create value for consumers, society and the environment, and sustainable profits for those who are involved.

**Wholesale** - the sale of products in large, often aggregated, quantities for resale by a retailer. The wholesaler is the business or organization that purchases products from producers, takes ownership of and stores product, and organizes distribution to their customers - retailers - as part of this forward-facing transaction.

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<sup>1</sup> The definition of sustainability is contestable. The challenge inherent in articulating the precise definition of this concept is to interpret the meaning of sustainability in practice (i.e. to operationalize it), without robbing it of practical and/or legal significance. Operationalization does not require the articulation of a single, precise, limited and uncontroversial definition; rather, it means to put something into effect, at the operational stage, so that it is meaningful and important. (Affolder, 2012).



# 1.0 INTRODUCTION

The premise of this research paper is that the present-day conventional (industrial) distribution system - while very effective for food produced on large North American farms and for product sourced internationally - does not work as well for producers with annual gross receipts totally less than \$1 million CAD and small to medium-sized farms in Canada (Stott, Lee, & Nichols, 2014a). The lack of suitable distribution services and retail outlets has been a barrier for many of these producers, who find it difficult to compete with the conventional food system on price and availability (Hild, 2009). As a result, access to local food options is hampered.

The increase in demand in Canada for locally produced food is widely acknowledged by industry, local food advocates, and government (Stott, Lee, & Nichols, 2014b). Buyers interested in participating in the local food system are confronted with limited options regarding availability and accessibility (OMAFRA, 2016). Consumers, grocers, processors and chefs have indicated that this gap in distribution is a barrier to buying local food (Stott, Lee, & Nichols, 2014b). At the same time, local producers are looking for new sales channels to maintain profitability in the face of increasing price competition from imports (Stott, Lee, & Nichols, 2014b). In order to meet the growing demand for local food and move significant quantities to these buyers, regional food systems need to be expanded from the limited direct (or farm-gate type) sales of small quantities to individual consumers to wholesale transactions in order to reach a wider array of customers (Day-Farnsworth, McCown, Miller & Pfeiffer, 2009).

Scaling regional food systems up and out becomes exceedingly difficult when local producers attempt to increase their production, while also managing the corresponding increase in the marketing, storage and transportation activities of their product by themselves

(Deloitte, 2013). From this, additional costs, concern for preservation of farm identity and potential for increased logistical complexity also arise. As an example, when local farmers need to divert attention away from farming, or bakers from the quality and output of their bakery, in order to just market and distribute their products, local food system expansion is limited. By scaling up and out, regional food systems do have the potential to benefit from some of the economies of scale of the industrial food system if they are able to specialize and share responsibilities and profits among actors who work together to move food to the end market (Rohan, 2014). The important notion here is that, in scaling up, the regional food system retains its social and environmental practices, which are of value to the consumer and are what differentiate it from food produced by conventional methods.

Publications can present food system success stories, encourage discussion on how alternate methods of food distribution can benefit producers, distributors and retailers, and act as a source of information about supply chain development. The intent of this research is to contribute to the body of literature that is dedicated to encouraging the development of networks of sustainable distribution systems that connect Canadian producers with regionally-situated Canadian consumers.

This research examines the governance, marketing, distribution and successes and challenges of seven current supply chain actors in the province of British Columbia (BC) to gather practical lessons on how they co-operate, the challenges they face, and how they move differentiated product from regional food producer to retail buyers in urban markets in a sustainable manner. The focus is on the operational and relational details. From these findings, a list of suggested best “practices” or “strategies” is inducted.

To select case studies for research, analyze findings and to write a report, a value chain approach was taken. The value chain approach considers the role of existing chain actors (i.e. producers, wholesalers, distributors, retailers), supporting actors (i.e. suppliers of

agricultural inputs, farm product marketing associations etc.), power dynamics within chains, and the policy environment within which it operates (USAID, 2018a). By identifying successes and challenges of sustainable regional food value chains within these contexts, the analysis can help identify opportunities for improving the efficiency of regional food distribution networks and increasing its value to its constituents. When markets are well-functioning, they can attract new food-related businesses to the region, to help satisfy the growing demand, or at the very least, persuade them not to leave (Cuddeford, 2012).

The research for this paper examines sustainable regional value chain case studies in the Canadian province of BC and draws upon supporting literature that is relevant to this region.

## 2.0 METHODOLOGY & RESEARCH OBJECTIVE

### 2.1 Research Objective

The objective of this paper is to understand some of the critical elements of successful distribution networks in Canada that support the sale of sustainably-produced food from small to medium-sized producers to buyers within the same region, at scale. Given the scope and research methods of this paper, it was not possible to deduce *all* critical elements. Therefore, the outcome of this paper is not a comprehensive analysis of regional food distribution in Canada, but rather, a description of some of the current best practices and system innovations or interventions that can be considered for application to regional food distribution networks in Canada.

To reduce the scope of research to a manageable size, and to take into consideration my physical location, the province of BC was taken as a physical delimiter for regional food distribution networks. To consider a sufficient level of demand necessary to sell regionally-produced food at scale, regional food distribution networks that serve urban population centres as an end market are studied. Urban centres are defined by Statistics Canada as a place where the population is greater than 100,000 persons (Statistics Canada, 2016).

### 2.2 Methodology

To address my research objective, I followed a qualitative research approach with primary and secondary research methods. The analytical lens that I applied when reviewing secondary literature and analyzing interviews is that of a value chain development framework.

For the purposes of this paper, sustainable regional value chains for food are defined by the J.W. McConnell Foundation as the “series of relationships between producers, processors, distributors [and] retailers... that are needed to get healthy, sustainably produced

food to regional markets [at]... scale. Such value chains ensure that producers receive fair compensation, that the food is produced, processed and transported sustainably, and that the final product is affordable and widely accessible” (J.W. McConnell Family Foundation, 2017). The Food and Agricultural Organization (FAO) adds that a sustainable food value chain is profitable throughout all of its stages, has broad-based benefits for society and has a positive or neutral impact on the natural environment (FAO, 2017). It is important to note that the definition of sustainability is contestable. Over 85 Canadian statutes now recognize the legal concepts of sustainability, yet, accusations about the concept of sustainability being ambiguous and amorphous are widespread. The challenge inherent in articulating the precise definition of this concept is to interpret the meaning of sustainability in practice (i.e. to operationalize it), without robbing it of practical and/or legal significance. Operationalization does not require the articulation of a single, precise, limited and uncontroversial definition; rather it means to put something into effect, at the operational stage, so that it is meaningful and important. For the purposes of this paper, the concept of sustainability refers to actions that move society towards ecologically sustainable patterns of production, distribution and consumption (Affolder, 2012).

The value chain development framework was chosen in order to arrive at the desired outcome of identifying some of the critical elements of regional food distribution systems in Canada that are successful at delivering product to the consumer in a sustainable way. Due to globalization even local markets must compete with firms and industries from across the globe. Local markets must be able to deliver a product to the consumer just as, or more, efficiently, with a higher quality and/or unique form than competing international firms. To not do so, is to lack a competitive advantage and thereby risk losing business (USAID, 2018a).

Further, to support local markets is to maintain the economic, environmental and social benefits for that region. Robust regional food systems offer economic, environmental and

social benefits. Supporting regional agriculture can help preserve valuable farmland and link producers with consumers who are wanting a connection to their community at large. An abundant supply of domestically-produced food may reduce a nation's vulnerability to supply disruptions and global food safety concerns. Purchasing regionally-produced food can support local economies by keeping food dollars in circulation within communities (FAO, 2014). Local food purchases can also reduce carbon emissions by reducing the distance food travels between producer and consumer. A shorter time-to-market improves product quality by increasing freshness and responsiveness to regional food trends (Smith et al., 2005). For these, and many other reasons, consumer interest in local food has grown in recent years.

Yet, consumers expect that regionally-produced food will address each of these social and environmental concerns while upholding, or even exceeding, the product quality they are used to from the conventional distribution system (Marenick, Gooch & Felfel, 2010). This expectation cannot be guaranteed by the localization of food. Nonetheless, there are many features of value chain development that generate wealth and provide wide-reaching benefits for local markets.

The value chain approach has distinctive features in terms of both the: I) scope used in analyzing an industry; and II) the tangible and non-tangible considerations used in the development of a supply chain. The features analyzed within the scope of a value chain approach are not necessarily unique to this approach, but few, if any, other economic development approaches simultaneously emphasize all of these features (USAID, 2018a).

**Table 1: Features of the value chain approach as an economic development framework**

Adapted from: (United States Agency for International Development, 2018a)

<b>Value Chain Feature</b>	<b>Implications for this research</b>
<b>Market-based approach</b>	Geopolitical and geographical factors are considered developed and fixed in the region of study. The goal of the value chain approach is to enable private-sector actors to act on their own behalf: collectively contribute to economic growth by creating a competitive value chain that is participatory to the extent possible and is sustainable.
<b>A focus on end markets</b>	The creation of products for the end-user to whom a product or service is sold and who is not expected to re-sell that product.
<b>Understanding the role of value chain governance</b>	Consider power dynamics of the business (internally & externally among actors) and motivations in order to select business partners and set up the parameters within which all partners operate.
<b>Recognizing the importance of forming trusting relationships</b>	The quality of relationships between different actors is a key factor affecting the transfer of information, skills and services.
<b>Base on sustainable actions</b>	Seek to facilitate changes in business behaviour that increase the competitiveness of the chain and generate profits and non-cash benefits for all participating actors, and their dependents, thereby contributing to inclusive economic growth.
<b>Learn and adapt, based on end-market demand</b>	Inherent in this approach is the challenge of working towards end markets, which are dynamic. Achieving successful outcomes in this context requires continual learning and adaption to know what is working and under which conditions. Sharing information facilitates this.

The value chain framework considers both structural and dynamic components. The structure of the value chain influences the dynamics of actor behaviour and those dynamics influence how well the value chain performs (USAID, 2018b). The process of value chain analysis requires the use of the value chain framework in order to identify:

1. The **structure** of the chain, which includes:
  - a. Which end market is being produced for (its demands);
  - b. The business enabling environment, that can be all at once global, national and local and includes norms, customs, laws, regulations, policies, public infrastructure and international trade agreements;
  - c. Type of actors that participate in transactions to move the product toward the end market and add value;
  - d. Their linkages;
  - e. Supporting markets, such as financial services, input providers et al.
2. The **dynamics** of the value chain, which refers to the determinants of actor behaviour and their effect on the chain's performance.
  - a. The nature of relationships between value chain actors;
  - b. The level of information shared between actors and ability/willingness to adapt to changing consumer demands.

Source: (United States Agency for International Development, 2018b)

The value chain framework is comprehensive with an outcome focus on tools and best practices. This framework is not appropriate for every economic development project or in all country contexts. Prerequisites for taking a value chain approach include a minimum level of good governance, stability in the business enabling environment, existence of some market-based activity and a desired outcome for economic recovery, economic growth or mitigation of economic loss (USAID, 2018a).

### 2.2.1 Phase 1: Secondary Research

I applied the value chain framework lens when researching published literature on existing successful regional food distribution systems and food value chains that were



focused on end markets in North America. I conducted a review of these publications pertaining to governance, production, marketing and trade of food produced and sold in the same region. I extracted information that appeared applicable to BC, based on scale, the business enabling environment and the end market and summarized best practices and learning from each publication and case study. By comparing and contrasting the two datasets, I could then verify the information collected and identified by secondary research methods (phase 1), its applicability to BC and induce learnings and best practices of my own.

### 2.2.2 Phase 2: Primary Research

An exploratory comparative case study approach was chosen as the primary research method, in order to capture the level of detail and richness of various distribution networks. Researcher Yin (Yin, 1984) defines the case study research method as an empirical inquiry that investigates a contemporary phenomenon within its real-life context, when the boundaries between phenomenon and context are not clearly evident, and in which multiple sources of evidence are used. The themes described in this paper emerged from my analysis of interview notes and other primary sources, such as company websites, newsletters and their social media feeds.

While business case studies traditionally focus on individual businesses, the case studies selected for this research examine established value chains that are successful at distributing sustainably-produced food from regional producers to retailers in urban centres using a values-based approach. The case studies describe the structure of the food distribution network, the nature of its relationships and its successes/challenges. A baseline review of value chain distribution models was first conducted to ensure a reasonably diverse representation of cases. An initial list of 25 value chain actors within BC

was gathered via personal contacts, search engine searches, organizational websites and by asking local businesses for references. Subject selection was based on the following criteria:

**Table 2: Selection criteria for primary research interviews**

<b>Subject</b>	<b>Criteria</b>
<b>Stage of business development</b>	Gross annual sales <\$1 million CAD; or Farm size between 1 to 4 hectares
<b>Geographical location</b>	British Columbia; and Sales channel(s) include urban centres
<b>Agricultural/food products</b>	Any, intended for human consumption in end markets. Must be produced sustainably, which for the purposes of this paper refers to actions that move society towards ecologically sustainable patterns of production, distribution and consumption (Affolder, 2012)
<b>Production methods</b>	Established formal/informal protocol for ensuring that practices are ethical & sustainable
<b>Market</b>	Retail grocery; and Participation in wholesale transactions
<b>Types of collaborations</b>	Values-based model with emphasis on sustainability through sound environmental practices, fair and robust economic relationships and concern for social equity

In this initial data-gathering period, emails were sent or phone calls placed to the 25 value chain actors (interview candidates). Of those who were interested in participating, interviews were conducted by phone. One interview also included a visit to their warehouse. Once the retailer, who anchored each value chain (and thereby each case study), was selected, contacted and with them the interview completed, I asked the interviewee to identify appropriate downstream food producers and/or wholesalers to interview (snowball sampling). These new contacts were subjected to the same aforementioned selection criteria and, importantly, were directly involved in the trade of food with the interviewee. This maintained the integrity of each value chain case study. This approach was not always successful, and lack of participation of one candidate within a case study rendered the entire case incomplete. Alternate efforts to find suitable actors within the value chains of each retailer were made.

Interviews were semi-structured, based on a stock set of developed questions, and were conducted with operational management staff or the business owner. The use of semi-structured interviews enabled me to explore the particularly relevant themes that arose in detail, while concurrently ensuring that the research remain focused on the issues. This approach provided standardized responses that could be analyzed effectively. Each interview lasted between 40 and 90 minutes. Responses were edited and recorded under the appropriate questions. There was a section in the notes for responses that did not seem to fit under a specific question. Interviews were not recorded by audio nor transcribed. A database in Excel was constructed that allowed all of the responses to be compiled and sorted in a variety of ways to aid analysis.

The factors that affect value chain performance are:

- Governance
- Capital & financing
- Marketing & sales
- Product quality assurance
- Distribution logistics
- Buyer-producer relationships & payment
- Regulations & policies

Adapted from: (United States Agency for International Development, 2018b)

Interview questions addressed each factor. See Appendix A for more detailed information about the interview questions used.

In the end, my original research plan called for 2-3 regional food value chain case studies. I completed two case studies centered on Vancouver, BC, for a total of seven interviews, between January and August 2018.

**Table 3: Summary of Primary Research Respondents and Their Primary Role in the Value Chain**

Retailers	Distributors/Wholesalers	Producers	Total
2	1	4	7

### 2.2.3 Phase 3: Analysis

The results of phases 1 and 2 were analyzed in phase 3 of the research. A series of common themes, successes and challenges emerged from the analysis.

Given the scope of my research and to properly manage the responses I received, notes from my interviews were analyzed using a descriptive/interpretive approach. Data from interviews was coded for the above categories and given a *positive*, *neutral* or *negative* label. A *positive* label indicated a benefit/success; a *neutral* label a factual or supporting statement; and a *negative* label a challenge. Data linkages to the author were always maintained.

### 2.2.4 Phase 4: Reporting

To show the range of cases analyzed in the body of the paper, I have included a brief summary of each business in section 4.0. The value chain case studies describe the commonalities, relationships, challenges and successes across actors.

## 2.3 Limitations and Assumptions

Limitations and assumptions that may affect the validity/reliability of the findings are outlined as follows in regards to scope, sampling, the interview process/coding and analysis.

### Scope:

The following topics may be important considerations for research on local value chains, but were not within scope of the study:

- Sustainability as it relates to how consumers use/waste food;
- End consumer accessibility/affordability at the retail-level (considered consumers as not highly limited by their economic situation);
- The business enabling environment a.k.a. geographical, geopolitical & socioeconomic landscape (Canada is considered to be developed and fixed in these realms);
  - An assumption is made that value chain learnings applicable to the U.S. can possibly be extended to value chains in Canada. Based on the outcome of the primary research, my analysis does deliberate whether components gleaned from the secondary research are shared by the case studies selected, in which case their findings may be applicable to Canada.
- Regulation (The report is limited to market-based approaches).
  - In actual fact, regulation was a strong theme in some interviews. The Safe Food for Canadians Act and GAP Policy<sup>2</sup> were of particular importance to some interviewees, due to the weight of impact on their business.

### Sampling:

Subjectivity in case selection may introduce sampling bias into the research. The following may be of consideration:

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<sup>2</sup> The Safe Food for Canadians Act was passed by the House of Commons on November 20, 2012 intending to strengthen and modernize Canada's food safety legislation. Most laws come into effect in January 2019. This Act is administered and enforced by the Canadian Food Inspection Agency and applies to all food that is being traded across provincial/territorial borders in Canada or internationally. Two foci of this Act are food traceability and preventative control plans (PCPs), which have particular financial and time implications for domestic producers (CFIA, 2015).

The CanadaGAP ("GAP") food safety program is a PCP that intends to implement/maintain food safety procedures for companies in Canada that produce, handle and broker fruits and vegetables. The manuals outline standardized procedures for production, packing and storage operations and for re-packers and wholesalers. It is a largely voluntary program but it is endorsed by the Canadian Food Inspection Agency (CFIA) and purports that producers who are GAP certified will benefit from more streamlined food safety regulations and inspections under the Safe Food for Canadians Act than those who are not (CanAgPlus, 2018).

- Geographical factors, such as only approaching interviewees in proximity to where I live (Vancouver, BC);
- Socioeconomic factors, such as reaching out to personal contacts with similar values and socio-economic status; and
- Political factors, such as receiving responses to my interview candidate outreach only by value chain actors who believe that participation in research is valuable, felt motivated by the research's cause, and were available to be interviewed during the period of time interviews were taking place.

### **Interview Process/Coding:**

At times it proved difficult to hold the interviewees on topic. While this did make for a very natural, comfortable and flowing interview, not every interview addressed each question with equal weight; themes or words that an interviewee repeated were written down at each instance, later contributing to greater weight in the overall interview notes analysis.

Raw data was recorded as computer-typed notes directly during interviews, potentially introducing some bias in the then following coding process.

### **Analysis:**

An important component of the value chain framework are the **dynamics** of the value chain, which refers to the determinants of actor behaviour and their effect on the chain's performance (see Methodology). During the analysis of the successes and challenges of actors, as well as their interdependencies, it became clear that the interviews, as conducted, only revealed limited information on how actors interact to form successful value chains. To correct for the lack of detailed answers regarding cross-actor relationships more focus was placed on successes and challenges that were repeated multiple times across actors within a case, were grouped as themes and analyzed.

## 3.0 SUSTAINABLE REGIONAL VALUE CHAINS

### 3.1 Industrial Supply Chains

Industrial food supply chains, like any other commodity-driven supply chain, encompass the movement and storage of raw materials (inputs), demand and supply planning, (agronomic) production, and the transportation and storage of finished goods from point of production to point of consumption (Blanchard, Flying Rutabaga Works & Rock Spring Farm, 2012). While supply chains for food vary by product, in general, they can be divided into three distinct phases, as described in the table below. Value chains, in comparison, are also described below and discussed in the following section 3.2.

**Table 4: Generalized Supply Chain Steps from Production to Consumption**

Adapted from: (Blanchard, Flying Rutabaga Works &amp; Rock Spring Farm, 2012)

	<b>Industrial Supply Chains</b>	<b>Value Chains</b>
<b>Demand Planning</b>	<ul style="list-style-type: none"> <li>• Mostly unresponsive to demand planning. Producers will typically rely on historical sales information to plan the upcoming production season: volume &amp; capacity.</li> </ul>	<ul style="list-style-type: none"> <li>• Rely on information shared by customers &amp; other market sources to forecast sales for the upcoming production season.</li> </ul>
<b>Supply Planning</b>	Consider capacity, yields and lead time in order to purchase inputs and plan production in order to meet the forecasted demand.	
<b>Production</b>	Production depends on the producer's climate, capacity, agronomic methods and crop/product.	
<b>Sales</b>	<ul style="list-style-type: none"> <li>• Typically take place during harvest &amp; storage. Buyers are typically alerted of the volume available for sale &amp; the date available. Interaction with customers is limited.</li> <li>• Marketing channels are relatively homogenous.</li> </ul>	<ul style="list-style-type: none"> <li>• Typically takes place during the demand &amp; supply planning stage.</li> <li>• Marketing channels depend on the product being sold.</li> </ul>
<b>Fulfilment</b>	<ul style="list-style-type: none"> <li>• Large distributors buy product from producers, store, aggregate and deliver to retail buyers.</li> </ul>	<ul style="list-style-type: none"> <li>• Wholesalers or distributors buy product from producers, store, aggregate and deliver to retail buyers.</li> <li>• Producers (or co-operative efforts by a group of producers) store, possibly aggregate and deliver to retail buyers.</li> </ul>

Industrial food supply chains base buying and production decisions on price. The main focus is usually on cost savings. Little information is shared between supply chain actors. Moreover, if customers are dissatisfied with inconsistent quality or simply demand less, due to shifting consumer preferences, producers sometimes do not receive this information on how their products are performing in the marketplace in order to make changes (Bouma & Toma, 1998). Where supply outpaces demand, the result is inventory that floods the market, and when the products are largely undifferentiated, this drives the price of the commodity down.



Producers will report income statement losses and financial instability when, as a result of depressed prices, their profit margin is lost. A lack of financial capital one year, results in fewer means with which to secure raw materials (inputs) and plan for production the following year (Blanchard, Flying Rutabaga Works & Rock Spring Farm, 2012).

Food has a limited shelf life and, more often than not, there are numerous producers trying to sell an equivalent product. Where the shelf life is particularly short and where the salvage value is little to none at the end of a selling season (such as produce), to get the best price, the producer needs to market their product prior to harvest (Blanchard, Flying Rutabaga Works & Rock Spring Farm, 2012). This ideally takes place during the demand planning step. However, in an environment of extensive market failure and limited information sharing, and where forward contracts are not secured, producers in the industrial supply chain will typically market for sale product that is just about to be harvested/finished, or was (and is in storage). At this stage of the supply chain, the finished product is already ready and their production necessitates delivery to a largely undifferentiated marketplace on spot market prices (Arvis, Gillson & Kunaka, 2013). Growing food without the knowledge of where and how it will be sold, subjects the price for this product to the capricious laws of supply and demand. This is why industrial supply chains are known as mostly “pushing” processes (Blanchard, Flying Rutabaga Works & Rock Spring Farm, 2012).

### **3.2 What are Value Chains?**

A value chain is not an object that one can see. Rather, a value chain is simply a useful way of understanding how businesses, involved in trade with one another, are producing, marketing and trading product. While businesses in a value chain are legally independent entities, value chains demand interdependency because all actors participating in the trade of goods have common goals and work collaboratively to achieve them. Trading relationships are formed in the interest of long-term success. Relationships are about human

interactions and in an effective value chain, actors at different stages of the chain actively support one another (Cuddeford, 2012).

Value chains are unique from industrial supply chains in that these actors work together over the long-term, discussing issues, troubleshooting problems, working collaboratively together to achieve common goals. It becomes more than just long-term contracting and business decisions based upon costs (White, 2000). The below Table 5 outlines key differences between value chains and industrial supply chains, and the discussion regarding the development of value chains follows.

**Table 5: What Makes Value Chains Unique from Industrial Supply Chains?**

Adapted from: (Bouma & Toma, 1998)

	<b>Value Chain</b>	<b>Industrial Supply Chain</b>
<b>Communication (information sharing)</b>	Extensive	Little or none
<b>Value focus</b>	Value/quality	Cost/price
<b>Product type</b>	Differentiated	Commodity
<b>Push/pull factor</b>	Demand pull	Supply push
<b>Organizational structure</b>	Interdependent	Independent
<b>Types of collaborations</b>	Chain optimization	Self-optimization

Value chains can often form as the “next step” for producers who have historically been selling their product via direct sales. Products sold directly to consumers usually include foods that require minimal processing: produce; fresh & frozen cuts of meat; and eggs. Foods such as oilseeds and grain normally require processing before they can be sold to the consumer in a useable form and are more likely to be sold to a processor than for the producer to take upon this capital-intensive task themselves. While direct-to-consumer sales can increase returns to some producers by removing additional actors (“middlemen”) who capture portions of the profit in exchange for a service, these channels alone are not equipped to accommodate the bulk of small to medium-sized agricultural producers - those

earning between \$50,000 and \$250,000 in gross farm income (Stevenson & Pirog, 2008). As small to medium-sized producers experience production and sales growth, they are likely to expand the number of crops that they specialize in - increasing the number of sales channels required. Others, due to land constraints, may be located far enough from population centres to make direct sales impractical. These small to medium-sized producers are often too small to generate economies of scale and compete on price with the industrial supply chain (Stevenson & Pirog, 2008). Sample economies of scale include: the cost of investment and operation of farm capital/machinery and the cost of employees and farm management spread across a larger volume of units; and better terms of trade in the marketplace due to larger sales volumes.

Other reasons why value chains may form are to improve the quality of products and therefore increase competitiveness within the marketplace, increase systems efficiency, and develop differentiated products (Agriculture and Food Council of Alberta, 2004).

As a result of being excluded from the industrial supply chain or for any of the above reasons, these emerging producers are likely to start looking for wholesale buyers and distributors at the regional level. Depending on the nature of their operations, these producers usually take on marketing strategies that involve some degree of product differentiation, based on attributes such as place of origin, production practices, product quality et al. to improve their bargaining position relative to commodity offerings from the industrial supply chain (King et al., 2010). Key to these marketing strategies is the establishment of strong relationships between the different actors involved in the production, processing, distributing and marketing of food. These emergent supply chains emphasize vertical coordination and relationships built on a set of values (read: attributes) that are important to the actors (Gooch, 2005).

Correspondingly, in contrast to industrial supply chains, value chains tend to form around a “pulling” process. If demand exists in the marketplace for goods that are currently not offered in sufficient volumes, an implicit recognition of increased value exists. Retail buyers will do their best to capitalize on this opportunity and fulfill demand. This puts the producer in a position to ask for a premium price (Blanchard, Flying Rutabaga Works & Rock Spring Farm, 2012). The overarching objective still is to satisfy end consumer’s needs in order to increase each actor’s profits. This is no different than a commodity-driven industrial supply chain. However, *true* value chains compel actors to satisfy consumers’ needs in a way that improves each actor’s livelihood (which necessarily subsumes sustainable profits) (USAID, 2018a).

Hence, each core actor involved in the production, marketing and trade of products performs a step(s) in the chain that adds value. Buying inputs, production, quality assurance, processing, packaging, transporting, and selling... each actor charges an “economic rent” at his or her stage of the chain. The incremental cost of each step can be looked at as the “economic rent” charged and should reflect the value added in a reasonable way (Cuddeford, 2012).

Some examples of what adding value can mean:

- Production practices (e.g. organically, ethical animal stewardship, local labour etc.);
- Third-party certifications (e.g. Certified Organic Canada, Fair Trade etc.);
- Place of origin (i.e. if local is desired, then locally-grown; or specialty products produced in the area known for its expertise);
- Reduced carbon footprint;
- Packaging that preserves product quality and/or is easy to use by the consumer;
- Intangibles (i.e. producer reputation, trust, way of life etc.).

Progression through supply chain steps entail trade of the goods. A feature of trading relationships is that the seller normally transfers ownership of the goods to the buyer at some pre-determined stage during the delivery process. Commercial traders most commonly use International Commercial Terms (Incoterms) in buying contracts or vendor agreements to clearly communicate the tasks, costs and risks involved in the delivery of goods from sellers to buyers. Depending on where in the supply chain an actor who adds value relinquishes control of their product, the chain of value may extend beyond their control. For this reason, many values-driven producers find it important to carefully select actors to work with. Their desire is for the product to maintain its value throughout the value chain and to be compensated fairly for the value they have added (Gooch, 2005).

Building relationships that result in successful value chains is not easy. Actors typically want to remain independent but also capitalize on each other's' strengths. Based on the literature, there are certain producer and buyer characteristics that help foster development of these values-based relationships. These characteristics are summarized in the chart below.

### Table 6: Important Characteristics for Traders Taking a Values-Based Approach

Adapted from: (Collins, 2003; Fearn, 1998; Food Chain Centre, 2005)

Buyer characteristics	Producer characteristics
<ul style="list-style-type: none"> <li>• Temperament (marked by a commitment to long-term business relationships)</li> <li>• Sharing a common vision of how to work together to meet volume &amp; quality requirements</li> </ul>	
<ul style="list-style-type: none"> <li>• Logistical match (geographical fit with logistical routes)</li> <li>• Economic match (purchase volume, existing demand for similar product)</li> <li>• Payment terms (esp. important in supply-managed product categories)</li> <li>• Marketing style (will your product value be maintained or enhanced?)</li> </ul>	<ul style="list-style-type: none"> <li>• Location of producer (geographical fit with logistical routes and/or as a marketing characteristic)</li> <li>• Economic match (neither partner is too large nor too small for the other)</li> <li>• Credibility (product quality assurance, food safety, can you trust that the value that is added is authentic?)</li> </ul>

Goods and money are not the only things that are exchanged between partners. Knowledge, information and feedback are also exchanged. Traditionally, advantageous information has been tightly held within the body of individual businesses and viewed as a source of bargaining power (Gooch, Marenick, Martin, Schmidt & Simo, 2012). Within a value chain, sharing information is imperative to ensure that the needs of actors are fully understood and met.

Information flows in two directions:

1. From buying inputs and production (e.g. seed companies, grain for bread, milk for yogurt etc.) to the end market; and
2. Feedback from the end market back to the production floor.

Two information types that must be shared to create an effective value chain are:

1. Performance information; and
2. Market information.

Source: (Gooch, Marenick, Martin, Schmidt & Simo, 2012)

In an effective value chain, each actor will have specific responsibilities in terms of gathering certain types of information and ensuring that it flows in both directions. The responsibility of the value chain, as a whole, is to act upon this information to increase their competitive advantage. For example, it is the responsibility of the wholesaler to inform the retailer of product availability twice a week, three days in advance of purchase. And, it is the responsibility of the retailer to communicate back to the wholesaler changing consumer preferences, so that the wholesaler can relay this information back to the relevant producers in a timely and organized manner (Collins, 2003b; Collins & Mowat, 2000).

These strategic alliances, so to speak, have been shown to reduce go-to-market lead times on new products and allow value chains to respond more swiftly to significant changes in consumer preferences (Gooch, Marenick, Martin, Schmidt & Simo, 2012). Partners are

competing in the marketplace as a system instead of individually. However - not without its challenges - value chains take time and focused effort to successfully develop.

There is a sizeable amount of research pinpointing why retailers or wholesalers lack motivation to work with producers to better meet the demand of consumers. According to the research, the first is the imbalance of power, relating to size of operations, staff, finances and marketing intelligence (Clements, Lazo & Martin, 2008; Collins, 2003a; Duffy, 2005; Fearné & Hughes, 1999; Wilson, 1996).

Secondly, the historical skepticism expressed by producers about retailers' strong-arm approach to commercial relationships and the policy of rotating internal staff on a regular basis, makes it difficult to build longer-term relationships (Fearné & Hughes, 2000).

Thirdly, when it comes to developing trusting and committed relationships between actors, White (2000) identifies the obvious: that it takes time. In her study, the average relationship within fresh produce value chains was found to persist for eight years, while some were strong yet even at thirty years. Time, willingness, flexibility (to adapt and innovate) and capability enable value chains to eventually create a micro-economic environment that facilitates proactive discussions about supply and distribution and within which performance is continually re-evaluated (Food Chain Centre, 2005). Over time, as these relationships mature, they become marked by interdependence. Both producer and buyer are in a position in which the other is needed - and are not uncommonly bound together by preferred supplier arrangements (Duffy, 2005).

Indeed, the entire process of developing and maintaining a closely-aligned value chain hinges on the capability of the actors involved to create an environment of cooperation, mutual respect and open communication (Collins, 2003b). Accomplishing this, the rewards are manifold:

- The series of working relationships and processes within a value chain, due to their inherent nature, are difficult to duplicate, lending itself to competitive advantage;
- Reduced lead time in responding to changing consumer preferences as a result of better communication among actors;
- Reduced risk of lost market opportunity: buyers are given assurance of product quality/value and supply volume, and suppliers and producers are assured of a market and the efficiency benefits of selling at (wholesale) scale;
- More rewarding business relationships, which are collaborative instead of adversarial.

Adapted from: (Agriculture and Food Council of Alberta, 2004)

The result is an empowered core group of actors who take responsibility for decision-making that produces individual and collective benefits.

### **3.3 Factors That Pull: The Nature of Consumer Values in British Columbia**

The emerging demand for “values-based” or “sustainable” food by fairly well-defined market segments is creating a profitable opportunity for many in the food production industry. Given that value chains are formed around “pulling” processes, consumer demographics do influence regional food demands and trends that characterize this “sustainable food” sector. As of July 1, 2017, the population of Canada was 36.7 million people and the population of BC was approximately 4.8 million people. This represents a nationwide increase of 11.6% since 2007 and 12.3% at the provincial level for BC. The biggest population centre is the greater Vancouver area, with approximately 2.6 million people. The other urban centres in BC are Abbotsford-Mission, Kelowna, and Victoria (Statistics Canada, 2018).

Taking organic food as an example of “sustainable” food, a Canada Organic Trade Association (COTA) study in 2013, found that the sales of organic products in Canada was

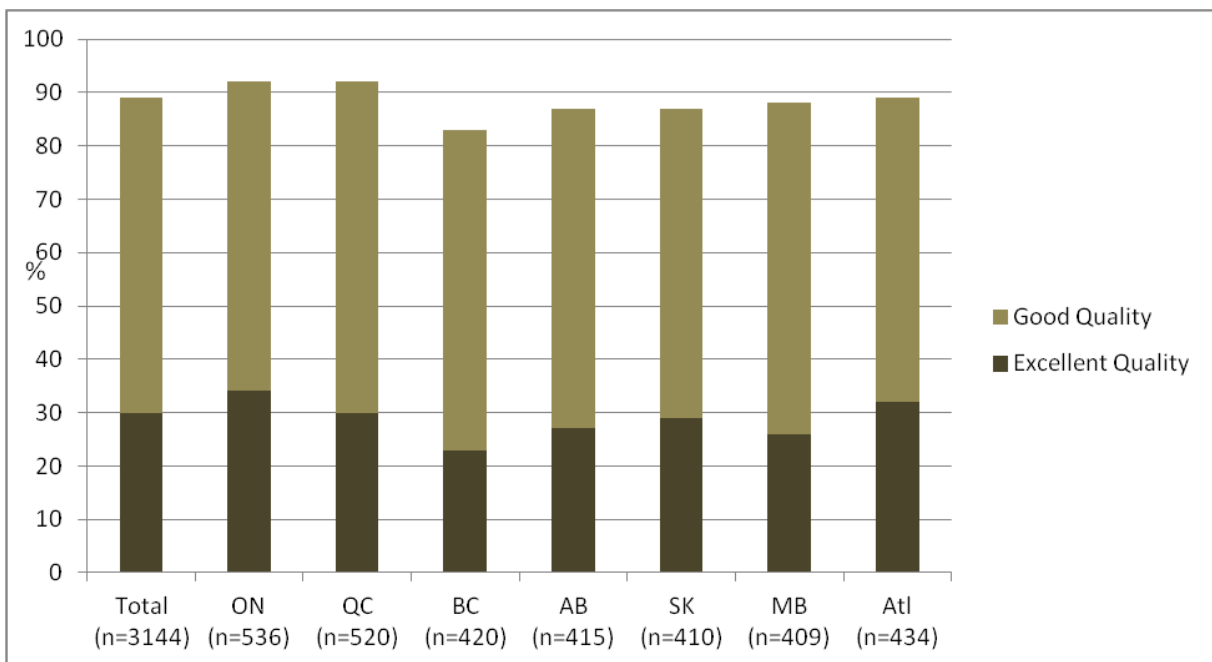


estimated to be worth \$3.5 billion in 2012. Canadian grocery stores and supermarkets sold \$1.35 billion, independent stores sold \$751 million and sales at Farmers Markets (or other direct-to-consumer) were estimated to be worth approximately \$316 million (COTA, 2013). The market for organic food is growing in Canada and the greatest demand is found in BC. BC accounts for only 13% of Canada's population, but represents nearly double the market share of Certified Organic food products of all other Canadian provinces (COTA, 2013). Similarly, there were 508 registered Farmers Markets counted across ten Canadian provinces in 2008 (Experience Renewal Solutions Inc., 2009) and approximately 125 Farmers Markets counted in BC in 2011. That, again, is an indicator of local food demand skewed towards BC. According to the BC Association of Farmers' Markets, their number keeps growing year over year (Kate Sutherland & Associates, 2011).

Of course, businesses are responding to this market opportunity with varying degrees of authenticity - ranging from simply using words like "local" or "natural" or "ethical", to constructing entire production and distribution chains built upon these values (Eyring, Johnson & Nair, 2011). Analogously, the Buy Local movement is often mistakenly characterized as being strictly focused upon minimizing the environmental impact of food production and distribution. Current research indicates that consumers' interest in the Buy Local movement is driven by a broader trend in seeking fresh, healthy food and/or having greater assurance regarding product safety and quality. It also shows that while consumers do voice their support of local food, the majority of their purchasing habits differ substantially from stated intentions. This is because food purchases focused on "local" are often made only once expectations of quality, availability and price have been met (Gooch, Marenick, Felfel & Viera, 2009; Gooch & Felfel, 2009; Ipsos Reid, 2007). It is fair to then say that the place of origin can be a determinant of purchase, though it is not the main driver of purchase. Today, Canadian consumers possess a greater sense of global awareness, a willingness to try new

things, a desire for variety and healthy eating, as well as a desire for freshness. Moreover, Canadian consumers have come to expect that a variety of fresh produce will be available year-round (Gooch, Marenick, Martin, Schmidt & Simo, 2012). As mentioned before, to successfully capture consumer interest and carve out a place in the highly-competitive grocery marketplace, local or regional products must differentiate: they must offer a value proposition that is unique and equal or superior to imported products, in terms of product quality, special features or after sales service (Agriculture and Food Council of Alberta, 2004).

Ipsos Reid conducted a study in 2010 for Agriculture and Agri-Food Canada on Canadian consumer perceptions of food quality and safety in Canada (Statistics Canada, 2010b). While, overall, Canadians appear to have a positive impression of the quality of food produced within Canada, BC consumers appeared to be warier than those in other provinces. Twenty-three percent of BC residents rated Canadian food quality as excellent, in comparison to 34% of Ontario respondents. Ninety-one percent of respondents in Ontario and in Quebec rated food quality as good or excellent, while in BC 84% of respondents rated it as such.



Source: (Statistics Canada, 2010a)

The survey also asked respondents how they defined locally produced food. The definition shared amongst the majority of respondents was, “products grown or produced within a fixed distance of where they are sold.” Notably, BC, Alberta, Saskatchewan and Ontario respondents were more likely to define food this way. A very small number of Canadians responded that they *always* seek to buy Canadian produced food - the majority (52%) indicated that they *often* seek locally produced food and 32% said that they *sometimes* seek locally produced food. Irrespective of their how frequently they seek out locally produced products, only half of the respondents would be likely to pay more than the conventional price (Statistics Canada, 2010b).

Consumer trends are not mutually exclusive in all cases. In the case of the Buy Local movement, trends are inter-connected. Many consumers equate “Buy Local” with organic and fresher and therefore of higher quality (Gooch, Marenick, Felfel & Viera, 2009; Macey, 2007). At this intersection personal food philosophies come into conflict as consumers debate the merits of eating local food that is produced conventionally versus imported food that is produced using organic methods. In whichever way these philosophies manifest, these types of debates and demands placed on the grocery market demonstrate that many Canadian consumers are thinking more about values and sustainability. Despite the growing interest for local food and concern for the environment, there is still a lack of substantive evidence that these concerns are the primary driver of food purchasing behaviour. Quality, freshness, price and nutrition continue to prove themselves as primary drivers. It is not hard to note that today’s consumer is therefore demanding not one, but multiple attributes from the food they buy (Gooch, Marenick, Martin, Schmidt & Simo, 2012).

In the wake of all of these demands, the challenge facing regional producers and buyers may be to adopt efficient and effective production, packaging, storage, distribution and sales processes throughout the value chain, without losing sight of the primary drivers and

the chain's commitment to its values. The reality is that a true values-based approach to food supply chains is not always in true harmony with the environment, nor does it strictly produce food in a non-industrial manner. Values-based supply chains do make use of commercial-grade machinery, to make cheese, for example, and could use pesticides to control for pest populations. The important thing to note here is that a value-chain focus does not banish or object to modern methods of production and transportation. The characteristics of values-based food supply chains are transparency, continuous improvement, and flexibility to market demands, longevity and a fair and just approach to working relationships.

Supply chain difficulties meeting consumer expectations mean that while buyers are reporting that demand for local food is outpacing supply, many farmers are reporting that their produce is going to waste in the fields or must be sold below cost of production. Reasons for this include a shortage of retail outlets for cosmetically-defective products, lack of coordination between buyers and producers during the demand and supply planning stage, unanticipated weather and a shortage of efficient, cost-effective storage, transportation and logistical support (Gooch, Marenick, Martin, Schmidt & Simo, 2012). Therefore, beyond the willingness to respond to changing consumer demands, producers and buyers alike must be pragmatic and rigorous in their approach. As one industry expert put it:

Successful producers are not successful because they are from BC or local; that is just an 'add-on'. They are successful because they are able to brand themselves over and above that by best practices, through marketing, service and always innovating.

(Gooch, Marenick, Martin, Schmidt & Simo, 2012)

And a grocery retailer:

Opportunities exist for the industry to succeed through producers growing what the market wants, in the safest and most effective and efficient way possible. Rather than grow what [the producers] want [and] they expect us to take it. (Ibid)

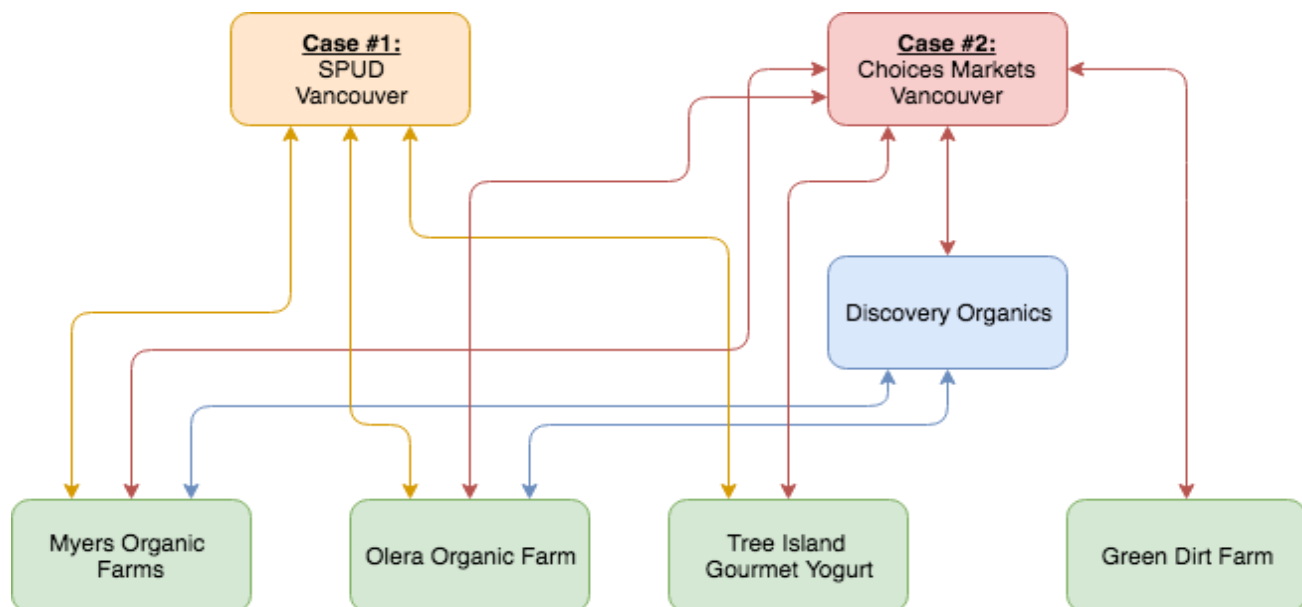
## 4.0 PRIMARY RESEARCH FINDINGS

### 4.1 Spotlight on British Columbian Value Chain Actors

The diagram below depicts the two case studies that are the focus of this paper; each is anchored by the value chain retailer.

**Diagram 1: Value chain case study network linkages at the time of writing**

Source: Primary research



#### Legend

Value Chain Actor Role	Colour
Retailer	Yellow, Red
Distributor	Blue
Producer	Green

Following are highlights from buyers and sellers who have been successful at distributing to regional markets in BC for years. The themes described in the following value chain actor spotlights emerged from my analysis of interview notes and other primary sources, such as their websites, newsletters and publically-available interviews.

### 4.1.1 Retailer: Sustainable Produce Urban Delivery (SPUD)



Image 1. SPUD grocery home delivery. (SPUD, 2013).

#### Orientation

#### Sustainable Product Urban Delivery

(SPUD) is Canada's largest omni-channel e-

grocer and operates in British Columbia and Alberta. The focus of this interview were SPUD's Metro Vancouver operations. SPUD's is a certified B Corporation<sup>3</sup> that focusses on selling sustainable produce. To accomplish its mandate, SPUD's producer sourcing criteria are:

- *Practice or actively support organic and sustainable growing methods that respect crop diversity and soil health, avoiding the use of pesticides.*
- *[Be] transparent about product ingredients and sources, prioritizing local when possible and avoiding the use of artificial components.*
- *Remain GMO-free.*
- *Provide safe, fair working conditions for food producers.*
- *Respect ecological habitats and animal welfare by...providing ample...space for [animals]. Animals must be raised without the use of growth hormones or antibiotics.*

Source: (SPUD, 2018)

**Primary role:** Online retailer offering home delivery service

**Location(s):** Vancouver, BC (HQ)

**Product Offering:** Grocery, with a small percentage of health & beauty products, pet & home products

**Urban Markets:** Metro Vancouver, Victoria (BC); Calgary, Edmonton (AB)

**Customers:** Sells to end-consumers for individual consumption

**Governance:** Privately-held corporation, founded in 1997, also a Certified B-Corporation

**Website:** [www.spud.ca](http://www.spud.ca)

<sup>3</sup> B Corporation certification is a legally-binding agreement to meet the "highest" standards of verified social and environmental performance, transparency and accountability. Further information at: [www.bcorporation.net](http://www.bcorporation.net).

To place an order, customers select a delivery date on SPUD's website, browse availability for a wide variety of local and organic food products (from produce to dairy, meat and pantry staples etc.) by individual producer, add virtual items to their online shopping cart and proceed with payment. Orders are delivered to customers in 1-7 days and customers can place an order up until 8:00PM on the day before delivery.

### *Marketing*

SPUD operates a two-sided marketplace and therefore must actively market to both consumers and producers. SPUD is active on social media and runs online advertisements and promotions. Their demand-side strategies aim to convince consumers to try online grocery shopping; this task of converting consumers from shopping in-store to shopping online is their biggest demand-side marketing obstacle. SPUD's sales team is also tasked with analyzing customer feedback, providing a weekly sales forecast and researching and anticipating sales trends in Metro Vancouver in order to inform the operations team's supply planning and producer sourcing strategies. SPUD finds the consumer demographic shopping at SPUD to be highly motivated to purchase local and sustainable food products. These consumers are willing to go through the "inconvenience" (although grocery home delivery is, in itself, a form of convenience) of trusting a company to discern product quality on their behalf and waiting for their delivery to arrive. However, for the fact that SPUD maintains the source identity of its producers up until the point of sale, celebrates their stories (biographies) online, and for the reason that it vets all suppliers as "sustainable", SPUD is able to differentiate themselves from other retailers in a way that provides value to this demographic. Furthermore, SPUD names "fighting for amazing customer service" (SPUD, personal communication, January 31, 2018) as a core value and retail differentiator.

Regarding supply-side marketing, SPUD's operations team is tasked with sourcing new suppliers, analyzing gaps in supply relative to the sales forecast, issuing purchase orders

(POs) to existing suppliers and arranging the inbound logistics of order receiving and storage and the warehouse. As it is not possible to source local supply for most products year-round in Canada, SPUD imports products internationally to ensure continuity and availability of supply for consumers. This sourcing strategy is necessary for SPUD to survive as a business and is accepted by the vast majority of consumers, so long as the imported product meets “sustainability” criteria and prevents stock-outs of SPUD’s “staple” (top sell-through) products. To facilitate automatic replenishment, SPUD has developed proprietary enterprise resource planning (ERP)<sup>4</sup> software, which automates demand-supply analysis of SPUD’s top sell-through items and generates purchase orders to suppliers, whenever necessary. However, not all suppliers are as tech-savvy as SPUD; SPUD also needs a group of buyers, whose job it is to make phone/email contact producers, administrate their accounts and coordinate order pickup or delivery. No producer is charged product listing fees. Outbound logistics (picking, packing and delivering orders) is also the responsibility of the operations team.

With respect to inventory strategy, SPUD’s aim is to minimize waste and be as lean as possible. Lean inventory is a function of accurate sales forecasting, food production and/or delivery lead times<sup>5</sup>, and supplier minimum order quantities (MOQs). Profit margins in grocery are very thin and there are many costs associated with carrying inventory that goes unsold. Operating one central warehouse to which all supply is delivered and from which all customer orders are fulfilled has aided SPUD in maximizing aggregation opportunities and shipping out product first that was first-in. For example, if a customer orders a product online that is listed as available, and the order picker finds the available inventory to either be missing or damaged, a similar product from a different producer will be substituted for the customer at

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<sup>4</sup> Enterprise resource planning is a business process that is typically facilitated by software to collect, store, manage and interpret data from various business activities. ERP encompasses information and produces required documentation related to planning, procurement, inventory, sales orders, distribution and accounting.

<sup>5</sup> Lead time is the time between the initiation and completion of a (usually production or transportation) process.



equal or lesser value. All of these efforts to be efficient in ordering and managing inventory have resulted in very positive inventory management practices - over 80% of SPUD's inventory is sold within 48 hours and the remaining 20% is sold within 12 days.

Comparatively, a conventional grocery store holds inventory for up to 27 days before it is sold (SPUD, 2018).

### *Transportation & Logistics*

SPUD's supplier POs are generally delivered to SPUD's Vancouver warehouse by minivan or truck by the producer, group of producers or supplier. In instances where the producer does not own a delivery vehicle, SPUD will arrange for product pickup depending on the producer's location: free of charge by one of their order delivery drivers; or at a cost-recovery fee by hired third-party carrier. Supply is consolidated across such producers whenever possible and the overhead cost of arranging backhaul logistics is absorbed by SPUD. SPUD acknowledges that smaller producers can rarely meet minimum volumes required to profitably utilize less-than-truckload (LTL)<sup>6</sup> carriers, and that for SPUD to arrange pickup of the product is simply the only way to be able to stock and sell it.

SPUD will also not charge for late produce deliveries and aims instead to maintain good communication with suppliers to ensure that SPUD is aware of any supply that is in transit. This is important because in order to be as lean as possible with warehouse inventory, product that is in transit to the warehouse is also counted as inventory and is already listed for sale on the website with the expected arrival date as the approximate inventory availability date.

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<sup>6</sup> Less-than-truckload (LTL) shipping is the transportation of cargo that takes up less than approximately 75% of a truck's carrying capacity. LTL shipments are frequently combined with cargo from other customers to best utilize the available volume in the truck. LTL shipments are normally more expensive than Full Truckload (FTL) shipments as a result of having to serve multiple customers.

Unique crops or poorly-packaged products are listed as a challenge for SPUD. They create exceptions to SPUD's standard handling and operating procedures and increase costs.

### *Product Quality Assurance*

To assure product quality, SPUD states that a continuous cold chain<sup>7</sup> is of outmost importance. SPUD continuously monitors temperature at the warehouse and on all outbound product. Incoming product is immediately received into an interim area of each inventory zone (frozen, chilled, dry) and inspected visually and with temperature guns. Product that fails quality control (QC) is quarantined and composted/donated to a local not-for-profit organization. Producers are usually not charged back for issues, unless severe. Internally, product is rotated in a first-in-first-out (FIFO)<sup>8</sup> manner to ensure that product is picked in the order that it was received and inventory is regularly inspected for spoilage. SPUD states that regular QC checks are key to achieving customer quality satisfaction. Product by individual supplier and individual PO are separated into lot numbers<sup>9</sup> at the warehouse to maintain source identity and support the FIFO process.

### *Success Factors/Challenges*

SPUD explicitly named its first success factor as time and experience. For over 20 years, SPUD has been doing business with small to medium-sized producers in Western Canada, which necessitates an understanding of their needs. Implicit trust is key. SPUD's second success factor is consistent product quality. SPUD listed their challenges as reacting

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<sup>7</sup> A cold chain is a temperature-controlled supply chain and is one aspect of food quality and safety management. An unbroken cold chain is an uninterrupted series of cooled storage and distribution activities, which serve to maintain a desired low-temperature range.

<sup>8</sup> First-in-first-out is an inventory management method. In a food application, FIFO is a food rotating system where the first product purchased (stocked into inventory) are the first goods to be sold (taken out of inventory). An effective food rotation system is essential for preventing foodborne illnesses and controlling for costs.

<sup>9</sup> A lot number is an identification number assigned to a particular quantity of product from a single producer.

quickly to changes in demand, and the climate of Canada, which lends itself to extreme weather conditions that affect transportation and limit the growing season for local supply.

Other factors extracted from the interview's narrative are included in the below matrix.

Category	Successes	Challenges
<b>Governance</b>	<ul style="list-style-type: none"> <li>• Trusting relationships with suppliers</li> </ul>	
<b>Marketing</b>	<ul style="list-style-type: none"> <li>• Organic certification &amp; maintaining source identity at point of sale increases differentiation</li> <li>• Active communication with consumers to understand trends</li> <li>• Excellent customer service</li> <li>• Canadian demographic supportive of local food</li> </ul>	<ul style="list-style-type: none"> <li>• Accurately forecasting consumer demand</li> <li>• Sourcing local supply that satisfies new consumer trends</li> <li>• Seasonality in Canada limits local supply &amp; detracts from "local" product offering</li> </ul>
<b>Transportation &amp; Logistics</b>	<ul style="list-style-type: none"> <li>• One central warehouse location to which all supply is delivered &amp; from which all orders are fulfilled reduces inventory waste &amp; increases distribution efficiency</li> <li>• Multiple suppliers for the same product reduces stock-outs</li> <li>• Quick order turnaround</li> </ul>	<ul style="list-style-type: none"> <li>• Extreme weather conditions</li> <li>• Large distances to cover by truck for product pickup &amp; order deliveries</li> <li>• Unique crops are challenging to store &amp; transport</li> <li>• High costs of transportation</li> </ul>
<b>Product Quality Assurance</b>	<ul style="list-style-type: none"> <li>• Perform QC checks often to consistently meet consumer expectations</li> <li>• Continuous cold chain</li> <li>• Traceability</li> </ul>	<ul style="list-style-type: none"> <li>• Local product lacks storage &amp; distribution capability due to poor packaging choices</li> </ul>

## 4.1.2 Retailer: Choices Markets



Image 2. Choices Markets Kerrisdale. (Choices Markets, 2018a).

### Orientation

Choices Markets (colloquially known as

“Choices”) is a BC-owned and operated chain of brick-and-mortar grocery stores that are focused on natural, certified organic and specialty food

products. Choices manages a supplementary online grocery store with home delivery for non-perishables (e.g. vitamins) and baked goods. The focus of this interview were its Metro Vancouver brick-and-mortar stores. Choices’ mission is to:

- *Offer their customers a variety of local, organic and speciality products at affordable prices while being committed to sustainability.*
  - *Always source local products first and, if must be ordered from abroad, source fair-trade wherever possible.*
- *Design their markets for a warm, attractive, family friendly shopping experience.*
  - *Build energy-efficient stores.*
  - *Compost produce, bakery and meat items.*
- *Train their employees to exceed retail customer service expectations.*
- *Support local charitable and community organizations.*

Source: (Choices Markets, 2018b)

**Primary role:** Brick-and-mortar retailer

**Location(s):** Vancouver, BC (HQ); 5 stores in Vancouver, 1 store in Abbotsford, 1 store in Kelowna, 1 store in Surrey

**Product Offering:** Grocery, with a small percentage of health & beauty products

**Urban Markets:** Metro Vancouver (incl. North Vancouver, Burnaby & Surrey), Abbotsford-Mission, Kelowna (BC)

**Customers:** Sells to end-consumers for individual consumption

**Governance:** Privately-held in BC\* limited liability company, founded in 1990

**Website:** [www.choicesmarkets.com](http://www.choicesmarkets.com)

*\*At time of interview, Choices was transitioning from an independent chain retailer to new owners - the Jim Pattison Group - which is a BC-owned privately-held company that owns several other chain grocery store brands in BC.*

## Marketing

Choices actively markets to local consumers. They have a social media presence, physical store presence in well-trafficked areas of Vancouver with attractive sidewalk displays, and they utilize print/online materials such as a monthly newsletter sent to subscribers. Although there are numerous retailers focused on natural and organic food products in Vancouver, Choices is one of the longest established retailers in the city and enjoys a reputation among consumers as friendly, consistent and easily accessible.

With respects to suppliers, Choices' sourcing strategy is mainly word-of-mouth. Again, as a long-standing retailer in Vancouver, Choices is well-known amongst producers and is a large buyer of regional products. Ninety-five percent of Choices' supply is from wholesalers and five percent is direct from producers. Choices does not charge listing fees to any of its suppliers and all prices must include cost of delivery. At Choices' head office, the Produce Operations Manager is in charge of sourcing, vetting and managing produce suppliers, controlling for product pricing and preparing an aggregate price list ("Order Guide") for the stores, every three days. The Order Guide is a curated list of produce available at that time, with ordering information, pricing, and standardized units of measure. Order Guides are prepared from the price/availability lists sent to the Product Operations Manager by producers and may include preferential indications ("primary", "secondary" supplier) per product, based on factors such as price or seasonal vendor agreements. Local store stock levels, order management and receiving are ultimately the responsibilities of the store's managers.

In Choices' experience, the consumer's willingness-to-pay is fixed, and so maintaining profitable product margins has to come from controlling expenses. As produce prices are highly volatile, buying programs from suppliers that ensure consistent volume and price enable the Produce Operations Manager to plan longer-term sales and protect financial stability. Choices has found that the protection of financial stability is of critical importance for

their top 20 sell-through products - these are products that must be in stock at all times (e.g. tomatoes, onions etc.), otherwise consumers are likely to walk away from the store. Choices finds that buying programs are easier to develop with established suppliers, with whom there is much implicit trust. Choices names negative experiences with sellers (in particular, brokers) who sell on commission and try to take advantage of buyers as critical to avoid. Choices takes time to develop relationships throughout the entire supply chain in order to understand current and future product availability and to share information on what is selling well.

For similar reasons as to why cost control is extremely important to Choices (read: consumer willingness-to-pay is fixed and retail competition in Vancouver is high), retail differentiation is also very important. First and foremost, the consumer demographic who shops at Choices expects a high standard of product quality. This demographic is also highly motivated to purchase local. Conversely, local product frequently shows cosmetic differences from mainstream product and is not always available due to the seasonality of Canada's climate. Getting consumers to understand that the cosmetic differences of local product do not detract from product quality and that fresh local strawberries, for example, are not available for the duration of the entire winter is Choices' biggest challenge. Nevertheless, Choices continues to choose local product over imported, because it facilitates retail differentiation. In store, Choices will label all product with its place of origin as well as occasional shelf talkers<sup>10</sup> that feature the producer. Choices' successes in celebrating the differences of local food are often important marketing distinctions from other retailers, which drives loyalty and repeat business.

### *Transportation & Logistics*

Choices neither owns nor operates any warehouses or transportation fleet of vehicles. As a result, Choices requires all orders to be delivered to their loading docks at the rear of

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<sup>10</sup> Shelf talkers are advertisements designed to be attached to a shelf on which the product is exhibited for sale.

each individual store. Each store has physically enough storage space for, on average, three days of on-hand inventory - longer for storage crops. Every few days, each store's produce buyer will assess inventory and demand at the store location, identify gaps in supply, and place orders from suppliers. Orders are expected to be delivered on Sunday and Monday evenings. Given Choices' buying power in BC urban markets and its central position along main transit routes, stores have few issues with arranging order deliveries.

Choices finds that local product does not store well. Local produce that is not immediately chilled, washed and packaged post-harvest will have a shorter shelf life than product that is, increasing inventory wastage. Additionally, local product is not always packaged in a way that facilitates efficient storage, increasing store's holding and handling costs. Choices feels that proper product processing and packaging should be the responsibility of the producer to ensure. As Choices' reputation hinges on consistently selling product of high quality, local products that lack storage capability create substantial costs for the retailer.

### *Product Quality Assurance*

When it comes to meeting consumer expectations of quality, Choices feels that they are very good at it. Stores experience a lot of repeat business and Choices has developed a reputation for selling product of consistently high quality. To assure product quality, Choices requires suppliers to maintain cold chains throughout distribution and deliveries to the store are visually inspected at receiving. Temperature guns and food safety checklists are rarely used by stores on product received from trusted suppliers, as stores have found these methods to be redundant and to increase labour costs. Given that 95% of purchases are from appropriately-equipped distributors and wholesalers, with whom Choices has long-standing relationships, food safety compliance has rarely been an issue. Product quality that deviates from vendor agreements is composted and its value may be deducted from payment.

Given the importance that Choices places on product place of origin, Choices does occasionally experience challenges with regional producers who do not follow voluntary country of origin (COO) labelling practices. Consequentially, Choices expends a fair amount of effort developing and maintaining COO (and region) signage for the store.

### *Success Factors/Challenges*

As explicitly stated by Choices, their number one success factor is achieving product price stability. Second is consistently high product quality, and third is retail differentiation.

Other factors extracted from the interview's narrative are included in the below matrix.

Category	Successes	Challenges
<b>Governance</b>	<ul style="list-style-type: none"> <li>Trusting relationships with suppliers</li> </ul>	<ul style="list-style-type: none"> <li>Being sold on commission or being taken advantage of by brokers</li> </ul>
<b>Marketing</b>	<ul style="list-style-type: none"> <li>Buying programs that ensure consistent price &amp; volume over time</li> <li>Making always available for sale &amp; protecting profit margins on top 20 sell-through products</li> <li>Maintaining source identity at point of sale increases differentiation</li> <li>Exclusivity agreements with suppliers increases differentiation</li> <li>Canadian demographic supportive of local food</li> </ul>	<ul style="list-style-type: none"> <li>Consumer willingness-to-pay is fixed so demand-side efforts to absorb rising costs are limited</li> <li>Produce prices are highly volatile, which hinders long-range sales planning</li> <li>Getting consumers to understand that local product has cosmetic differences &amp; is seasonal in supply</li> </ul>
<b>Transportation &amp; Logistics</b>		
<b>Product Quality Assurance</b>	<ul style="list-style-type: none"> <li>Consistency in product quality that meets consumer expectations</li> <li>Limited storage space at stores ensures that product is ordered often, rotated frequently and therefore very fresh</li> <li>Traceability</li> </ul>	<ul style="list-style-type: none"> <li>Local product lacks storage capability due to post-harvest practices &amp; poor packaging choices</li> </ul>



### 4.1.3 Distributor: Discovery Organics



Image 3. Discovery Organics staff. (Discovery Organics, 2018a).

#### Orientation

Discovery Organics (“Discovery”) is an independently-owned Canadian distributor and wholesaler of certified organic and Fair Trade produce. Key to their ability to consistently stock and distribute such products are their great efforts to promote, educate and convert small-scale agricultural farmers in BC and Latin America to certify organic and/or sell under the Fair Trade banner. Discovery has assisted farmers in proper seed selection, developing cooperative shipping docks and uniform packaging and more. Discovery’s ethos is:

- *We begin with our mission to help develop markets for local organic farmers.*
- *We acknowledge that we can’t grow our own food year-round so over the years we have extended our relationships with small-scale farmers to include farms south along the Pacific Coast, and to Mexico and South America.*
- *Build trust with our grower partners and treat the fruits of their labour with respect.*
- *Make long-term commitments with our community of producers and help them move to larger and more financially sustainable operations.*

Source: (Discovery Organics, 2018b; Discovery Organics, 2018c; Discovery Organics, 2018d)

Discovery has a staff of over 50 and operates from a warehouse on “Produce Row”

(Malkin Avenue) in Vancouver.

**Primary role:** Distributor

**Location(s):** Vancouver, BC (HQ & warehouse)

**Product Offering:** Fruits & vegetables, with a special focus on fair-trade and certified organic

**Urban Markets:** Metro Vancouver, Victoria (BC); Calgary, Edmonton (AB); Winnipeg (MB)

**Customers:** Sells to grocery retailers

**Governance:** Privately-held limited liability partnership, founded in 1999

**Website:** [www.discoveryorganics.ca](http://www.discoveryorganics.ca)

## Marketing

Discovery is one of the best-known distributors of organic and Fair Trade produce in Western Canada. Discovery sells to retailers of all sizes: from small, independent grocers to supermarket chains. Sixty to seventy percent of their sales are within the Greater Vancouver Area. Thirty to forty percent are to other parts of BC, Yukon Territory, Alberta and Manitoba. Having been in operation since 1999, Discovery has a strong buyer network and marketing presence; most demand-side marketing efforts are by word-of-mouth.

As a distributor of specialty produce, Discovery needs to market themselves to suppliers. Discovery's managing director, Randy Hooper, is instrumental in developing supply lines in South America and Mexico. As well, other staff support the expansion of local production in BC, most notably through the Certified Organic Associations of British Columbia (COABC) network. Developing new supply lines often begins with going into small farming communities in foreign countries and pitching organic agronomy. Hooper may also suggest that the farmers come together as a co-operative and under the Fair Trade banner to win price premiums.

Locally and internationally, as Discovery's mission is to make long-term commitments with their community of producers and help scale them to larger and more financially sustainable operations, they are aware that many of these small/new producers lack economies of scale. Staff make regular visits to farms and they work to maintain strong ties with the producers and be involved in crop and demand planning. Discovery will support small to medium-sized producers with funding to purchase agricultural inputs, developing their marketing materials, office space for producer meetings, product transportation to their warehouses and consistent product pricing. As a result of all of these efforts (and only a few were named), Discovery is very often a priority customer for producers and will in turn receive first-purchase or exclusive supply privileges upon harvest.

Although 85-90% of Discovery's supply is direct from producer, for the remaining 10-15%, Discovery does work with brokers to fill gaps in supply, but will always know the source.

### *Transportation & Logistics*

Discovery is responsible for some inbound and all outbound transportation. Discovery owns a fleet of trucks and vehicles with which they accomplish their product deliveries and pickups. International supply is delivered by international carriers and many regional producers have established relationships with third-party carriers or their own trucks with which to deliver orders to Discovery's warehouse. In cases where regional producers do not have transportation capabilities, Discovery arranges for product backhauls and will pick-up and aggregate product across these producers, at no charge.

Discovery also offers advice on packaging standards to producers and will support producers in developing better packaging, be it sourcing new packaging suppliers at favourable prices or storing packaging materials at Discovery's warehouse.

### *Product Quality Assurance*

Discovery indicates that high produce quality is both a strength and necessary in order to command premium prices. At any given time, Discovery will have 700-800,000 lbs of produce on-hand at the warehouse. The warehouse is divided into five different climate zones (cold, chill, dry, avocado, and warm/tropical) in order to ensure the best possible storage environment and to extend product shelf life. Each zone has a real-time temperature monitoring system and the warehouse was recently equipped with an ozone gas<sup>11</sup> generator. Inbound product is inspected for quality at receiving but no longer in extreme detail, as the ozone gas works to disinfect the produce in storage. Once stocked, regularly-scheduled quality checks and lot rotation procedures are performed. Outgoing produce is always

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<sup>11</sup> Ozone, a gas that is a triatomic form of oxygen, has been used for years as an environmentally-friendly disinfectant of viruses, bacteria, biofilms, fungi and protozoa - none of which can build up a resistive tolerance to ozone, because ozone disinfects by oxidation processes (Rice, Graham & Lowe, 2002).

inspected during order picking. Where absolutely necessary, claim reports to producers for inbound quality are made. It is worth noting that Discovery will accept fresh produce from very small producers - who are at a vulnerable and early stage of business, without much capital - that still has heat from the field<sup>12</sup> (a trait that is normally not tolerated by mainstream buyers), if rejection would mean that the producer cannot afford to pay rent that month.

### *Success Factors/Challenges*

Discovery explicitly lists their success factors as first and foremost stemming from their desire for the “grower to be there next week” (Discovery Organics, personal communication, February 27, 2018). For this desire to become reality, Discovery supports farmers in ways that are unique to each producer’s situation and which foster a lot of mutual trust and information sharing. The biggest challenge that Discovery explicitly listed is compliance with the new regulatory requirements of the Safe Food for Canadians Act (SFCA). As many of Discovery’s domestic producers are small to medium-sized in operation and because Discovery distributes product across provincial/territorial borders, the inability of a Canadian producer to comply with the new requirements due to limited economic means is a major supply risk. Discovery is in the process of speaking with each of its domestic producers to assess their situation. The feedback that Discovery hears from its suppliers is that the SFCA will require more resources (human and capital) to implement and that not all are, at present, able to afford the additional resources.

Other factors extracted from the interview’s narrative are included in the below matrix.

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<sup>12</sup> Field heat is the heat contained in a crop immediately after harvest. Field heat is a combination of the heat absorbed by the plant tissues from the environment prior to harvest and the heat resulting from the relatively rapid respiration occurring in the still-warm plant tissues. The enzymes in plants that stimulate decomposition are more active at higher temperatures. Removing field heat means to bring down the temperature of the plant in order to extend the shelf life of a harvested plant.

Category	Successes	Challenges
<b>Governance</b>	<ul style="list-style-type: none"> <li>• A competent &amp; visionary leader</li> <li>• Trusting &amp; mutually supportive relationships with suppliers</li> </ul>	<ul style="list-style-type: none"> <li>• Ability of suppliers to comply with new regulation (e.g. SFCA) and maintain profitability is a supply risk</li> </ul>
<b>Marketing</b>	<ul style="list-style-type: none"> <li>• Developing new (international) supply lines &amp; new products with existing producers increases differentiation</li> <li>• Exclusive/preferred supplier agreements increase differentiation</li> <li>• Fair pricing ensures consistent supply</li> <li>• Organic &amp; Fair Trade certifications command premium prices</li> <li>• Excellent customer service</li> </ul>	<ul style="list-style-type: none"> <li>• Getting buyers to buy-into cosmetically different local produce</li> <li>• Seasonality in Canada limits local supply volumes</li> </ul>
<b>Transportation &amp; Logistics</b>	<ul style="list-style-type: none"> <li>• Sharing capital (storage &amp; transportation) costs with suppliers to enable local supply</li> </ul>	<ul style="list-style-type: none"> <li>• Extreme weather conditions</li> <li>• Large distances to cover by truck for product pickup &amp; order deliveries</li> </ul>
<b>Product Quality Assurance</b>	<ul style="list-style-type: none"> <li>• High quality produce</li> <li>• Semi-automation of Product Quality Assurance (ozone &amp; real-time temperature monitoring)</li> <li>• Continuous cold chain</li> </ul>	<ul style="list-style-type: none"> <li>• Poor post-harvest practices makes Product Quality Assurance at warehouse challenging</li> </ul>

#### 4.1.4 Producer: Myers Organic Farms



*Image 4.* Bob & Marlene Myers with family on their farm.  
(Beyond Your Eye Productions, 2018)

#### Orientation

Myers Organic Farms (“Myers”) is a 70 acre family-run farm in the fertile Fraser Valley of BC. After personal health issues caused the founding couple to reconsider their professions and desired lifestyle, Myers was founded on a 20 acre plot of family-owned land with virgin soil as a way to return to a healthier and simpler lifestyle. With no interest in farming conventionally, Myers began using organic methods in 1995 and over time saw the land transform from Class 4 farmland into Class 2.<sup>13</sup> Today, Myers is third-party certified organic and has expanded their farm capacity from utilizing 2 acres at its inception to putting 70 acres into production. Myers is a strong proponent of maintaining direct-to-consumer contact, for the benefit of local and organic education/advocacy to consumers.

**Primary role:** Farmer

**Location(s):** Langley, BC (HQ & farm)

**Size:** 2-70 acres

**Product Offering:** Fruit & vegetables, certified organic

**Urban Markets:** Vancouver, Victoria (BC)

**Customers:** Sells to grocery wholesalers & retailers, farmers markets

**Governance:** Privately-held corporation, founded in 1995

**Website:** [www.myersorganicfarms.ca](http://www.myersorganicfarms.ca)

<sup>13</sup> The Provincial Agricultural Land Commission utilizes a classification system known as the “Land Capability Classification for Agriculture in British Columbia”. Its aim is to identify land’s potential for agriculture. Class 1 is the best; 7 is the worst. Class 2 farmland is classified as, “Having minor limitations that require good ongoing management practices or slightly restrict the range of crops, or both. Class 2 farmland limitations constitute a minor management problem or may cause lower crop yields compared to Class 1 land but which does not pose a threat of crop loss under good management. Class 4 farmland is classified as, “Having limitations that require special management practices or severely restrict the range of crops, or both. Class 4 farmland is suitable for only a few types of crops, or the yield for a wide range of crops is low, or the risk of crop failure is high (Agricultural Land Commission, 2013).

## *Marketing*

Myers sources new buyers by word-of-mouth, from agricultural/food trade events and by also receiving a healthy amount of calls from prospective buyers. Myers sells 75% of their volume at wholesale volumes, and 25% direct-to-consumer at Farmers Markets. Of their wholesale volume, their buyers are a mix of regional independent grocers, natural health food stores, supermarket chains and regional distributors, operating within the Western provinces.

To facilitate orders, Myers regularly sends product availability sheets and pricelists to buyers. There is an MOQ for most product, which Myers feels to be reasonable and necessary in order to justify transportation costs. At their farm size and level of experience, Myers is able to ensure consistent wholesale volumes to customers and they find that their established buyers are, too, consistent with their timing and volume of buys. This consistency in matching supply with demand is of great benefit to Myers in production planning; it is when their supply outpaces demand that Myers spends a lot more time on trying to find buyers to take the excess supply, if they can. As of late, one of the reasons Myers is finding their supply to outpace demand are hobby farmers whose primary job generates sufficient income for their needs and who have produced enough supply for multiple drops of shipments to local retailers so that they can sell under cost. Nevertheless, Myers also faces price competition from imported produce, which is much more consistent in supply and price and does make it difficult for Myers to compete solely on price.

In order to differentiate their products, Myers relies on organic certification and place of origin (“local”) to drive premium prices.

## *Transportation & Logistics*

Myers owns a reefer truck and hires a driver, who is on the road, six days a week. All product, after it is harvested and processed, is stored in a cooler on the farm’s premises. Lot numbers are assigned to move product from field to storage to customer. Each evening, an

inventory of all product in the cooler is accomplished and orders for the next day's deliveries are picked and packed onto pallets. This includes receiving product from neighbouring farms, free of charge, for consolidated delivery to buyers. Likewise, this shared-capital arrangement also generates a fair amount of goodwill for Myers with its buyers, who prefer to receive fewer deliveries, which reduces receiving costs for the buyer.

Myers has indicated that the cost of keeping a truck on the road is high and that this cost is not necessarily always recovered in a sale. The price of fuel and insurance in BC is increasing each month and their experience with some retailers is that they offer little distribution support - whether it be actual infrastructure support or merely in-kind support, such as delivery flexibility and adherence to MOQs when placing buys. Retailers who favour frequent deliveries due to a lack of storage space are challenging to serve. Buyers who have supported Myers in ordering MOQ volumes and maintaining source identity have been beneficial to the business. Myers notices that buyers are very motivated to assist producers who have highly differentiated crops, no transportation capabilities and/or live in very close proximity to urban markets. This is a conundrum for Myers, who in earlier years, did not experience these types of producers competing in wholesale markets.

### *Product Quality Assurance*

At Myers, product quality assurance is about ensuring consistency, freshness, nutritive content and food safety. Myers is certified organic. Myers knows that product shelf life is important to buyers and immediately washes, grades and chills produce after harvest. Produce is packaged in an optimal way to extend shelf life in cold storage. Myers follows regular quality inspection and rotation procedures and monitors the temperature of produce in storage and during transportation in the reefer truck. While all produce cartons are labelled with the farm source, not all individual pieces of produce are. Myers does point to a loss of



traceability at the retail store-level if retailers aggregate similar products together without maintaining source identity. Myers considers this both a food safety and marketing concern.

### *Success Factors/Challenges*

Myers explicitly names its success factors as consistent product quality and volume delivery to buyers. Myers' main challenges are price competition from imports and increasing cost pressures for domestic producers with the introduction of the SFCA requirements. Having once farmed at only 2 acres, Myers points out that the new requirements will be especially difficult for small-scale farmers to implement. Even at Myers' medium-scale operation, the annual audit fees (\$1,200/year) and paperwork will be extremely cost and time consuming. Myers anticipates hiring a full-time worker, simply to address the paperwork.

Other factors extracted from the interview's narrative are included in the below matrix.

Category	Successes	Challenges
<b>Governance</b>	<ul style="list-style-type: none"> <li>Land ownership secures tenancy &amp; increases autonomy</li> </ul>	<ul style="list-style-type: none"> <li>Compliance with new regulation (e.g. SFCA/GAP) will hurt profitability</li> </ul>
<b>Marketing</b>	<ul style="list-style-type: none"> <li>Farm size enables consistent supply</li> <li>Active communication with buyers to understand market &amp; needs</li> <li>Organic certification commands premium price</li> </ul>	<ul style="list-style-type: none"> <li>Price competition from imported produce and hobby farmers</li> </ul>
<b>Transportation &amp; Logistics</b>	<ul style="list-style-type: none"> <li>Pooling transportation with other producers consolidates orders deliveries for buyers</li> </ul>	<ul style="list-style-type: none"> <li>High costs of transportation</li> <li>Being required to deliver less volume (&lt;MOQ) more frequently</li> <li>Lack of buyer distribution support</li> </ul>
<b>Product Quality Assurance</b>	<ul style="list-style-type: none"> <li>Consistency in product quality that meets buyer expectations</li> <li>Post-harvest processing &amp; on-farm cold storage</li> <li>Continuous cold chain</li> <li>Traceability</li> </ul>	

#### 4.1.5 Producer: Olera Organic Farm



Image 5. Olera Organic Farm. (Olera Organic Farm, 2014)

##### Orientation

Olera Organic Farm (“Olera”) is a certified organic fruit and vegetable farm, situated in the fertile Fraser Valley, approx. 75 km southeast of Vancouver. Certified organic in 1989, Olera is one of the oldest organic farms still in operation in BC. Olera farms on and maintains Class 1 farmland.<sup>14</sup> As a 6<sup>th</sup> generation farmer, the owner actively cultivates the farm’s biodiversity (with 25+ varieties of produce). With better crop planning and management in recent years, Olera’s wholesale business has expanded across Canada.

Olera has trouble finding local agricultural workers. As a result, Olera utilizes yearly the Government of Canada’s seasonal foreign workers program with a high percentage of returning employees. Recently, with the influx of Syrian refugees to Metro Vancouver, Olera has additionally created a New Canadian workers program on their farm. Each day, a shuttle picks up, and later drops back off, a number of landed refugees with agricultural skillsets.

**Primary role:** Farmer

**Location(s):** Abbotsford, BC (HQ & farm)

**Size:** 10 acres

**Product Offering:** Fresh & frozen certified organic fruit & vegetables, baked desserts

**Urban Markets:** Metro Vancouver (BC)

**Customers:** Sells to grocery wholesalers, & select retailers, farmers markets

**Governance:** Privately-held company

**Website:**

[www.bcfarmfresh.com/farms/olera-organic-farm/](http://www.bcfarmfresh.com/farms/olera-organic-farm/)

<sup>14</sup> The Provincial Agricultural Land Commission defines, in the “Land Capability Classification for Agriculture in British Columbia”, Class 1 farmland as, “Having no or only very slight limitations that restrict its use for the production of common agricultural crops. Land can be managed and cropped without difficulty. Productivity is easily maintained for a wide range of field crops (Agricultural Land Commission, 2013).”

## *Marketing*

Olera sells to buyers within its region: independent grocery stores and chains focussed on natural foods, distributors/wholesalers who distribute nationally, and direct-to-consumers at Farmers Markets, under a co-op banner with four other local producers.

Olera considers their “number one job as a farmer...to feed people and [to] not throw food onto the compost pile” (Olera Organic Farm, personal communication, July 9, 2018). To best serve its buyers network, Olera takes the time to regularly speak with buyers and other local farmers to understand what is selling well and what new products can be grown to meet consumer demands. Olera’s demand management process is as much as it is about securing business as it is developing new product lines in order to satisfy buyers. Olera invests much time in building relationships and sharing information and believes that supplier trust is key to well-functioning local distribution networks. Olera’s sales and marketing channels are word-of-mouth and social media.

To facilitate orders, Olera sends buyers a projected product availability sheet and pricelist every week. There are no MOQs and prices include cost of delivery. Orders are taken twice weekly, and produce is harvested to order the day before delivery. Since the farm is not too large to manage with fifteen workers, Olera has decided to operate with a just-in-time (JIT) production methodology<sup>15</sup> to ensure the freshest possible quality.

## *Transportation & Logistics*

Olera owns a large delivery van and the farm owner personally delivers all orders to buyers, twice a week. The owner is on the road approximately 16-20 hours per week. Olera sees delivery as a customer touchpoint and wants to ensure good customer service, as well

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<sup>15</sup> A JIT methodology (or “made-to-order”) aligns production processes with orders. As such, in farming, an order would be placed and the producer would then respond by harvesting, processing and preparing goods for delivery.

as take the opportunity to discuss with buyers market trends. At present order volumes, this method is sufficient, but if volumes increase, Olera will need to hire drivers.

### *Product Quality Assurance*

Olera is certified organic and complies with all the necessary requirements. Above and beyond organic certification, Olera does not spray the produce (not even sprays permitted under organic certification), but rather companion plants to encourage natural pest control. To date, Olera has never experienced a major pest issue, and has previously won the “Best Organic Integrated Farm System (Sustainable Practices)” award from COABC.

Olera views product quality assurance as ensuring that the freshest possible produce is delivered to customers, proper post-harvest processing and continuous cold chain support. Olera’s JIT production methodology supports this mandate. Product is harvested to order, inspected for quality, graded and processes immediately, boxed by lot number, and then stored in cold storage on the farm’s premises until order delivery the next day. Each storage zone has real-time temperature monitors, as does the delivery vehicle. Olera delivers only grade-A produce and offers for sale a mix of fresh and frozen produce to buyers.

### *Success Factors/Challenges*

Olera, first and foremost, explicitly attributes its market success to its product quality and aptitude for meeting buyer expectations. The owner’s “gift of gab” (Olera Organic Farm, personal communication, July 9, 2018) has meant that the farm is successful at producing relevant products for the market and developing strong producer-buyer relationships. Key features of Olera’s relationships are trust, communication and excellent customer service.

Olera’s current biggest challenge is pressure from one of their core buyers, Choices Markets, to adopt GAP certification in order to standardize traceability measures from its suppliers. Choices is reacting to the SFCA’s mandate that Canadian farms who trade across (provincial/territorial or national) borders implement and adhere to a recognized Preventative

Control Plan (PCP). CanadaGAP is one example of a CFIA-endorsed PCP. The infrastructure changes required in order to become GAP certified will be very expensive for Olera.

Moreover, based on data shared from farms within proximity, Olera expects farm labour productivity rates to drop 75% as a result of the additional paperwork and handling procedures required to maintain GAP certification. Olera is concerned that the SFCA does not improve the competitiveness of Canadian producers relative to international competitors (imported product is not subject to the SFCA's policies and is already cheaper) and that it, in fact, penalizes domestic producers by increasing their costs in order to assure product quality, which Olera maintains that they have been able to assure all along. Olera must decide whether to invest in GAP certification or risk losing one of its biggest buyers.

Other factors extracted from the interview's narrative are included in the below matrix.

Category	Successes	Challenges
<b>Governance</b>	<ul style="list-style-type: none"> <li>• Leader competent in agronomy &amp; sales</li> </ul>	<ul style="list-style-type: none"> <li>• Compliance with new regulation (e.g. SFCA/GAP) will hurt profitability</li> <li>• Recruiting farm labour</li> <li>• Additional land to expand production</li> </ul>
<b>Marketing</b>	<ul style="list-style-type: none"> <li>• Active communication with buyers to understand the market &amp; needs</li> <li>• Organic certification commands a premium price</li> <li>• Excellent customer service</li> </ul>	<ul style="list-style-type: none"> <li>• Price competition from imported produce</li> <li>• Getting consumers to understand that local product has cosmetic differences</li> </ul>
<b>Transportation &amp; Logistics</b>	<ul style="list-style-type: none"> <li>• JIT production methodology decreases inventory waste</li> <li>• Quick order turnaround</li> </ul>	<ul style="list-style-type: none"> <li>• Order delivery is time-consuming</li> </ul>
<b>Product Quality Assurance</b>	<ul style="list-style-type: none"> <li>• JIT production methodology facilitates fresh &amp; consistent quality</li> <li>• Post-harvest processing &amp; on-farm cold storage</li> <li>• Continuous cold chain</li> <li>• Traceability</li> </ul>	

### 4.1.6 Producer: Green Dirt Farm



Image 6. Growing salad greens. (Green Dirt Farm, 2018)

#### Orientation

Green Dirt Farm (GDF) is a 4-acre family-run semi-automated farm situated approximately 250 km northeast of Vancouver. The founder has a background in food manufacturing and, together with his wife, desired a more flexible and rural lifestyle, which led to farming. At a small-scale, the family grew a variety of vegetables and sold direct-to-consumer via community supported agriculture (CSA) and Farmers Markets. Lillooet is quite rural; a small population combined with high customer churn meant this business model was not profitable. Speaking with regional grocery retailers and their connections, they came to better understand the market opportunities in local and organic produce. They decided to grow salad greens and garlic, and found the reception from buyers to be overwhelmingly positive. GDF is still a fairly new business. At their current stage of growth the owners work off-farm in the winters in order to support on-farm investments.

#### Marketing

GDF has developed a product line of pre-washed and pre-packaged ready-to-eat organic salad greens - a niche market in which there are few competing producers in Western Canada. GDF focusses on two types of buyers only: national distributors and retailers within close proximity. The national distributors with whom they work sell to all types of retailers -

**Primary role:** Farmer

**Location(s):** Lillooet, BC (HQ & farm)

**Size:** 4 acres

**Product Offering:** Salad greens & garlic, certified organic

**Urban Markets:** Vancouver (BC); Calgary, Edmonton (AB)

**Customers:** Sells to one major grocery distributor, select retailers

**Governance:** Privately-held family-run company, founded in 2012

**Website:** [www.wolfesgreendirtfarm.com](http://www.wolfesgreendirtfarm.com)

from regional independent grocers to supermarket chains. Marketing and sales efforts have mainly involved increasing business within their current network.

GDF has found success in ensuring consistent product availability and volume to its core buyers. By semi-automating production and cultivating healthy soil, GDF is able to shorten production lead times and keep all products in stock at all times. Furthermore, investments in attractive and practical packaging and presentation of their story as a small local family-run farm have served to noticeably increase their marketing presence. Demand for organic and local salad greens in Western Canada is strong, meaning that many buyers are eager to carry GDF's product line. However, GDF has found that as a result of their size and stage of business, they still need to be flexible in their payment terms or MOQs in order to secure sales. Additionally, mainstream producers are able to employ aggressive marketing tactics, like "scan-backs", where retailers receive discounts for increasing their product sales.

GDF is motivated by the strong sales growth experienced by their business. GDF does see issues with expanding at a rapid rate. Firstly, like much else in produce, they find that the business of salad greens must reach a certain volume of sales in order to be profitable. In order to support higher volumes, greater investment in capital infrastructure is needed. GDF finds that sources of non-equity funding are limited and capital costs are high. Consequently, GDF's pace of growth is limited to their profit re-investment opportunities.

### *Transportation & Logistics*

GDF's distribution beginnings were in direct-store-delivery (DSD)<sup>16</sup> distribution, which was so costly a distribution method that GDF needed to impose very high MOQs on buyers to make the delivery cost worth it. GDF was a new business, with little marketing clout at the time and retailers were mostly unwilling to purchase MOQ volumes. Naturally, GDF found that

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<sup>16</sup> Direct store delivery is the term used to describe a method of delivering product from a supplier directly to a retail store, thereby bypassing a retailer's distribution center and/or other middlemen. DSD typically (but not always) works for high-turnover products and products for which there is limited shelf space at the retail-level.

working with distributors, who were responsible for last-mile distribution for many producers, was a more viable option. Thus, at present volumes, GDF mainly outsources their distribution to deliver product to urban centres and maintains some DSD for local retailers within close proximity.

While this has allowed GDF to focus on expanding production, instead of spending large amounts of time delivering orders, GDF does experience challenges meeting the timing of cargo handover required by the distributors and supporting their high shipping rates. GDF does not sell sufficient volumes yet to justify dedicated trucks, so LTL shipment schedules are often tight, being at the mercy of the distributor who is coordinating many other pickups for the same truck. Moreover, LTL shipping rates are up to 50% higher than FTL, which would enable GDF to access preferred shipping rates with third-party carriers and to begin to control their own distribution network. Once sales volumes reach the critical break-even point, GDF plans to move in this direction. GDF expects that the savings from moving away from selling through distributors to developing their own distribution network using third-party carriers will almost double their profit margins.

### *Product Quality Assurance*

For buyers who are interested in carrying GDF's products, GDF's goal is to be an easy switch from conventional products. GDF is vigilant in meeting existing consumer expectations of quality; hence, they package, market and present their product in a similar fashion to mainstream product offerings. GAP certification is of utmost importance to buyers when selling ready-to-eat produce. As well, large distributors are unlikely to carry salad greens that are not in clamshell packaging. GDF packages their salad greens in clamshell and their production practices are GAP and organic certified. As part of GDF's personal philosophy, GDF also goes above and beyond the CFIA's requirements for organic certification by also eliminating any controversial and animal-based agricultural inputs. To maintain its quality in



storage and beyond, GDF packages its salad greens in fully-sealed tamper-evident cases and has on-site coolers to preserve freshness until a sale and transportation is arranged.

### *Success Factors/Challenges*

GDF states that their biggest obstacle to product quality is neither production nor processing, but consumer perception. GDF's experience is that consumers desire local food and want to support local producers, but concurrently expect the product quality to be even better (i.e. fresher and tastier) than conventional product. Consumers also want a comparable price point. Despite this challenge, GDF explicitly listed the supportive consumer demographic in Canada as their first success factor. GDF believes that ten years ago their business model would have not been viable. Today, local is a strong differentiator and retailers are willing to make extra efforts to source small-scale local products.

Other factors extracted from the interview's narrative are included in the below matrix.

Category	Successes	Challenges
<b>Governance</b>	<ul style="list-style-type: none"> <li>• Willingness to be flexible &amp; adapt to market demands</li> </ul>	
<b>Marketing</b>	<ul style="list-style-type: none"> <li>• Active communication with buyers to understand the market &amp; needs</li> <li>• Canadian demographic is supportive of local food</li> <li>• Differentiated story/packaging</li> </ul>	<ul style="list-style-type: none"> <li>• Price competition from massive corporations who can afford aggressive marketing tactics (e.g. "scan-backs")</li> <li>• Getting consumers to understand that local product has cosmetic differences</li> </ul>
<b>Transportation &amp; Logistics</b>	<ul style="list-style-type: none"> <li>• Outsourcing transportation capital</li> <li>• Semi-automation in production reduces overhead costs</li> </ul>	<ul style="list-style-type: none"> <li>• Insufficient supply volume to command more favourable FTL shipping rates</li> <li>• High cost of capital</li> <li>• Production location far from buyers</li> </ul>
<b>Product Quality Assurance</b>	<ul style="list-style-type: none"> <li>• GAP certification for ready-to-eat salad greens</li> <li>• Clamshell packaging for ease of transport &amp; storage</li> </ul>	

### 4.1.7 Producer: Tree Island Gourmet Yogurt



Image 7: Merissa Myles & Scott DiGuistini. (Tree Island Gourmet Yogurt, 2015)

#### Orientation

Tree Island Gourmet Yogurt (“Tree Island”) was founded by a BC couple motivated to improve their lifestyle. On a business trip to Paris, the two were eating delicious yogurt, and shortly after decided to start a yogurt business. Before starting Tree Island, the husband of the duo enrolled in a cultured yogurt course at Cornell University. Although the barrier to entry into the yogurt industry in Canada is quite high and the market potential largely squeezed out of the product, the couple did recognize a market opportunity: grass-fed yogurt with natural ingredients was missing from the market. Tree Island thus based its production model upon:

- *A mandate of promoting and sustaining the natural and improving the health of our customers and environment.*
  - *Use only local grass-fed milk from pasture-raised cows in the food shed surrounding the production facilities.*
  - *Use a traditional, slow-kettle cooking method - no artificial additives.*
- *Building a stronger local food system.*
  - *Promote sustainable land stewardship practices by working with existing farmers to convert them to pasture-raised production methods.*

**Primary role:** Yogurt producer

**Location(s):** Courtenay, BC (HQ, production facility & 1 warehouse)

**Size:** <\$1 million CAD

**Product Offering:** Grass-fed yogurt from BC-sourced dairy

**Urban Markets:** Vancouver, Victoria, Kelowna (BC); Calgary, Edmonton (AB); Toronto, Kingston, Ottawa (ON); Montreal (QC)

**Customers:** Sells to foodservice, grocery distributors & retailers, other food manufacturers as an ingredient

**Governance:** Privately-held, family-run corporation, founded in 2012

**Website:** [www.treeislandyogurt.com](http://www.treeislandyogurt.com)

- *Promote the idea of a Vancouver Island milk shed.*
- *Lobby the Minister of Agriculture to make adjustments to the supply-managed dairy system to pay farmers a premium price for pasture-raised milk.*
- *Goodwill.*

Source: (Vancity, 2018; Tree Island Gourmet Yogurt, 2018)

Moving to Vancouver Island, where land prices were favourable, the couple found it a great place to start a food business. Many independent grocers already existed in the area and were very supportive of local businesses, as reflected in their fee structures.

### *Marketing*

Tree Island distributes its products within regional markets in BC as well as to Ontario, Alberta and Quebec. When they first opened their business, buyers were approaching Tree Island for sales. Today, growth is still progressing organically, and the company has hired an account manager to build up a sales team. The goal is to find new leads and manage buyer accounts. Their current roster of buyers is primarily comprised of retailers (both supermarket and alternative), some family-run distributors, and to a lesser extent foodservice and other food manufacturers who buy Tree Island products as an ingredient.

To tell its small-family and values-based business story, Tree Island hired a branding agency. They wanted to differentiate themselves from the massive industrial food system where scale of operation influences perceptions of credibility. Because the dairy industry in Canada is supply managed, it is a closed system and there are few players at the federal level. As a result, Tree Island has three main, large, competitors and comments that there is a distinct lack of innovation and differentiation in the industry. As a small business and as part of their philosophy, Tree Island brings its production and sourcing strategies down to human speed, reflecting slow food and relationship-driven actions in its branding. This draw a contrast to its competitors; additionally, Tree Island invests in visually attractive packaging with 50% less plastic than conventional styles.

Operating within a supply-managed industry, Tree Island has volume limitations due to quotas and is challenged to find new buyers in order to secure more supply-side contracts. The company recently won a grant with the Ministry of Agriculture with which it plans to start building a new production plan. Currently, two grass-fed pasture-raised cow farms out of eight on the Island supply to Tree Island; Tree Island's production volume is not yet large enough to absorb all of their supply. Given financial pooling, the BC Milk Marketing Board (from whom Tree Island purchases its milk) fixes milk costs. Working with the then-Minister of Agriculture Norm Letnick, Tree Island successfully lobbied the BC Milk Marketing Board to increase traceability and pay premiums to farmers who are supplying milk from grass-fed cows in contrast to the industrial system of corn-fed cows. These efforts were successful, allowing Tree Island to be selective about their source of milk supply and allowing grass-fed dairy farmers to capture a larger share of the profits made from the premium yogurt sales.

Another feature of the supply-managed dairy industry in Canada is that dairy farmers need to be paid every two weeks. Payment terms are therefore, "probably the most important aspect of doing business" (Tree Island Gourmet Yogurt, personal communication, June 1, 2018) for Tree Island. Tree Island will only do business with buyers who can meet their Net 15/21<sup>17</sup> payment terms. To facilitate orders, Tree Island's sales team sends out pricelists and product catalogues on a regular basis to buyers to inform them of product availability. Their MOQ is 3 cases, which does not seem to be a barrier to any buyer.

In order to support as consistent a supply as possible to their buyers, Tree Island provides regular raw material requirement forecasts to the dairy farmers from whom they source milk. This is a raw material hedging strategy: by committing to purchase certain quantities of milk in advance of the transaction date, they can plan production levels so as to

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<sup>17</sup> Net 15 and Net 30 are forms of trade credit which specify that the net amount (the total dollar value outstanding on the invoice) is expected to be paid in full by the buyer to the seller within 15 or 30 days of the date when the goods are transferred in ownership to the buyer.

never be out of stock for their core buyers. Likewise, their yogurt production schedule works off of a customer demand forecast. In contrast to other federal yogurt producers in Canada who take orders two weeks in advance of delivery, Tree Island plans to have stock ready at point of sale so that orders can be delivered within a few days. Tree Island understands that retailers do not know what will sell well in two weeks, so this level of freshness and responsiveness is key to retaining and developing business.

### *Transportation & Logistics*

Tree Island is challenged to coordinate all of its own distribution as they have found that mainstream distributors charge a 25% margin, which is too high for Tree Island to successfully turn a profit. With its production facilities, trucks and main warehouse in Courtenay, BC, Tree Island leverages a third-party carrier to access a fleet of trucks and third-party warehouses to stock product across the country. Tree Island hires drivers in each city to pick up from these warehouses and to provide good customer service to buyers. This shared-capital logistical arrangement benefits Tree Island in two ways. First, their current cost of distribution is approx. 12% less than if they outsource to a distributor. Second, they have the freedom to control who represents their brand when making deliveries in various cities. Tree Island relies on hired drivers to deliver on-time, keep the truck safe and clean and uphold good customer service. Tree Island considers “nice” drivers to be crucial to the success of this distribution model. Likewise, Tree Island believes that controlling distribution costs is, “the only real difference as to why some food companies succeed over others” (Tree Island Gourmet Yogurt, personal communication, June 1, 2018).

### *Product Quality Assurance*

Production output is 1,000L batches per day. Tree Island complies with all of the monitoring and control procedures required of federal yogurt producers in Canada. Tree Island buys milk only from registered farmers and pasteurizes the milk in adherence with the

BC Dairy Act section 6. Each batch of yogurt is inspected at various stages throughout the production process. Each yogurt container is labelled with the place of origin, lot number and best-by date. Product is stored in coolers and is delivered in a reefer truck to maintain the cold chain.

### *Success Factors/Challenges*

Tree Island explicitly lists their success factors as product differentiation, quick order turnaround and control over their distribution network. Challenges are access to volume quota and sources of funding to expand production and high costs (time and money) of capital.

Other factors extracted from the interview's narrative are included in the below matrix.

Category	Successes	Challenges
<b>Governance</b>	<ul style="list-style-type: none"> <li>• Leader who can effectively lobby the government for policy changes (i.e. increase milk supply traceability)</li> </ul>	<ul style="list-style-type: none"> <li>• Limited sources of funding available to food businesses to pursue expansion</li> <li>• Strict credit payment terms necessary</li> </ul>
<b>Marketing</b>	<ul style="list-style-type: none"> <li>• Milk from grass-fed cows commands a premium price</li> <li>• Differentiated story/packaging</li> <li>• Canadian demographic supportive of local food</li> <li>• Excellent customer service</li> <li>• Hedging raw milk supply to ensure consistent volume to buyers</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of innovation in the Milk Marketing Board due to closed system</li> <li>• "Local" as a differentiator only useful near production origin</li> <li>• Supply-managed dairy industry limits supply volume</li> </ul>
<b>Transportation &amp; Logistics</b>	<ul style="list-style-type: none"> <li>• Outsourcing transportation &amp; storage capital to reduce costs</li> <li>• Quick order turnaround</li> <li>• Controlling distribution network logistics</li> </ul>	<ul style="list-style-type: none"> <li>• Extreme weather conditions</li> <li>• Large distances to cover by truck to deliver orders</li> <li>• High costs of capital</li> <li>• Order delivery is time-consuming</li> </ul>
<b>Product Quality Assurance</b>	<ul style="list-style-type: none"> <li>• Continuous cold chain</li> <li>• Traceability</li> </ul>	

## 4.2 The Value Chain Case Studies

The two case studies reported on in this paper were intentionally selected to examine a variety of food producers, product mixes and types of partnership or collaboration. Each case study, by virtue of interviewing each actor within the value chain, addressed the following elements of a distribution network:

- How the distribution network is structured and how it trades with regional small to medium-sized food producers;
- The motivation for buying regional food and if/how source identity is maintained/communicated throughout the value chain;
- Key success factors and challenges in the trade of regional food;

In order to describe each case study, I read the narrative of each actor's interview and coded important phrases (explicit) and sentiments (implicit) by their subject (Governance; Marketing; Transportation & Logistics; Product Quality Assurance) and their value (success or challenge) in Excel. I then used Excel to sort/pivot the coded narrative in order to identify data groupings (i.e. themes) within each case study. This information can be found in Appendix B.

The following discussion will focus on the themes and practices within each case study that emerged from the primary research.

### 4.2.1 Case #1: Retailer and Producer Led-Distribution



#### VALUE CHAIN ACTORS

Retailer: SPUD Vancouver (“SPUD”)  
 Producer: Myers Organic Farms (“Myers”)  
 Producer: Olera Organic Farm (“Olera”)  
 Producer: Tree Island Gourmet Yogurt  
 (“Tree Island”)

#### *Orientation*

SPUD Vancouver is an online retail grocery store with a warehouse and transportation fleet in Vancouver. Their delivery area is within a 150km north and east radius of Vancouver. Myers Organic Farms and Olera Organic Farm (each located approx. 65km from Vancouver) deliver directly to SPUD’s warehouse. Tree Island Gourmet Yogurt (located 200km from Vancouver) leases third-party vehicles in order to deliver their product to SPUD. The themes that emerged from the analysis of this case study are as follows:

<b>Successes</b>	Understood product & service quality as important purchase criteria for online grocery
	Adopted a fully traceable system from producer to consumer, whereby increasing product differentiation and reducing food safety concerns
	Minimized inventory wastage by aggregating all product for a region into one warehouse and by taking orders up to one week in advance of fulfillment
	Retailer-managed “last mile” distribution, increasing producer transportation cost-effectiveness and efficiency
<b>Challenges</b>	Providing a unique product mix that encourages consumers to try SPUD and engage in repeat business
	Seasonality creates difficulties for obtaining adequate volumes of local supply as well as “last mile” transportation
	Trucking is a significant cost for SPUD

#### *Marketing*

According to SPUD, their business was born in the year 1997 out of a desire to make it easier for urban consumers to procure local food and develop a connection with their local producers. SPUD’s founders understood that the demand for local and sustainable food in



Western Canada was growing and that consumers were confronted with a variety of ways to source local supply - but none too convenient. Desiring to facilitate a connection between consumers and producers, SPUD developed an online grocery marketplace that focused almost exclusively on local food that met SPUD's sustainability criteria. Over time, SPUD has identified key success factors that enable their distribution network to operate successfully: high levels of retail differentiation; excellent customer service; logistical competence; and consistently high produce quality.

All actors in this case study concur that high levels of retail differentiation are necessary in order to effectively compete within the retail grocery landscape and to expand sales of local food. SPUD's customers are concerned with producer identity and want to be assured of sustainable production practices. SPUD finds that these consumers are willing to pay price premiums for products that meet these conditions. SPUD's response was to develop producer sourcing criteria, that specifically outline sustainable production practices, and to maintain the producer's identity up to the point of sale. By sharing each producer's identity with consumers, and marketing their stories (through short biographies on the website, their newsletter, and occasionally through print materials), SPUD is making an active commitment to product differentiation, which drives consumers' perception of value and thereby price premiums. Another way that SPUD motivates consumers to purchase local is by listing the distance travelled by every item of food to SPUD's warehouse. When consumers place an order online, they can see the total number of kilometers that the food in their order travelled. SPUD finds that when consumers are confronted with a purchase decision between local and non-local food, so long as other purchase criteria such as price and date of availability are fairly comparable, consumers will choose local supply over non-local. Further, since consumers who shop online are trusting SPUD to select quality products from the warehouse for their order, place of origin as a product differentiator becomes more important

than product traits such as size and consistency, which are at that moment in time not physically verifiable.

With increased supplier transparency, do come supply risks. For SPUD, nominating a supplier means that even through periods of fluctuating costs, short/sub-standard supply, or late deliveries, they will continue to source product from these producers in the case study. To help address periods of supply fluctuation (including Canadian winters, during which fresh local produce is largely unavailable), SPUD has found it necessary to source from multiple local and international producers and distributors for the top sell-through items. For example, Myers and Olera have overlap in their product offering. SPUD sources 70-80% of their supply direct from producer and the remaining 20-30% from distributors. If a consumer orders local product that arrives to the warehouse from the producer in sub-standard condition, SPUD will substitute product from a different supplier at equal or lesser value and makes this action clear during order delivery. Likewise, what also helps is that SPUD can display the availability of product online by delivery date, leading consumers who are very loyal to certain producers to select an order delivery date in the future. SPUD does not penalize late supplier deliveries nor chargeback producers for occasional product quality issues.

The actors in this value chain state that a high level of communication is required to operate a supply chain this way but that the benefits are manifold. All four producers within this case study indicated that the core of their business comes from buyers who are fairly consistent with the timing and volume of their buys. In order to facilitate the buys, GDF, Olera, Myers and Tree Island actively communicate with SPUD regarding product availability and prices. They also stated that capturing price premiums was necessary in order to cover the relatively high costs associated with producing food in Canada. Myers notes that their farm goes through efforts to highlight source identity and place of origin on all cartons that go to buyers for delivery, but that these efforts are lost when, “[individual producer] traceability is all

lost at the store level anyways... [Retailers] mix product like it is a commodity” (Myers Organic Farms, personal communication, March 5, 2018). For producers like Olera and Myers who do not really have the ability to individually label each individual product with attractive packaging (unlike GDF and Tree Island whose product is stored in plastic containers), retailers like SPUD who develop marketing materials for them are a boon.

### *Transportation & Logistics*

In order to ensure a consistent supply of local products, SPUD’s operations must assist producers in distributing their product to consumers. From the information provided by SPUD in the interview, SPUD will go to great lengths to support producers in delivering their products to SPUD’s warehouse. SPUD has the benefit of a wide order distribution network (150km radius north and east of Vancouver) meaning that a larger percentage of the consumer demographic motivated to purchase local food can be captured. SPUD delivers approx. 7,500 orders per week and places POs with local producers 1-2 times per week. There are no restrictions on receiving days at the warehouse and SPUD regularly meets producer MOQs, which are very important to buyers such as Tree Island and Myers who listed buyers not meeting producer MOQs as a real challenge. SPUD’s ability to consolidate the demand for a large number of buyers into one drop-off location for producers supports cost-effective supply-side transportation and less time on the road delivering orders. Although it happens rarely for the producers in this case study (because it is not often necessary), for producers located along SPUD’s delivery routes, SPUD can arrange for product pickup if the PO quantity is very small. SPUD’s willingness to work with producers within the constraints of their business demonstrates a commitment to local supply.

To meet demand-side transportation minimums, SPUD motivates consumers to order at least \$35 worth of groceries in order to receive free delivery. Free delivery days are also only certain days the week in each neighbourhood, to help plan more efficient transportation

routes. Free delivery motivates consumers to increase the percentage of their food budget shared with SPUD and thereby SPUD's suppliers.

### *Product Quality Assurance*

SPUD credits their high produce quality to their rigorous quality procedures and high sales turnover. The producers in this case study assert that post-harvest processing techniques (not applicable to Tree Island) and on-site cold storage are important factors to delivering consistently high quality products to SPUD. By selling to a large customer base from one warehouse location, SPUD can order frequently from producers and move that same product out to customers within 48 hours. Continuous cold chain is critical to SPUD, who deals not only with product inbound to the warehouse (which could spoil in transit), but also product outbound to customers, which needs to maintain a cold chain in transport and at the consumer's home for several hours if they are not physically present at the time of delivery. All of SPUD's delivery vehicles feature real-time temperature monitors and producers who deliver to SPUD must also prove cold chain support and product traceability. All product that is received is assigned a unique lot number, which segregates producers and maintains source identity. Inventory at the warehouse is inspected frequently as part of SPUD's quality control procedures. Damaged and spoiled food is composted. Food that does not meet the cosmetic criteria of consumers is sold as "imperfect product" at a discount on the website. Producers, such as Myers, will normally not have outlets for sale for product that is cosmetically challenged; selling imperfect produce at a discount from a reputable retailer motivates consumers to try it, creating a secondary market for local food sales. This effectively increases supply for the retailer and revenues to all value chain actors involved.

## 4.2.2 Case #2: Distributor and Producer-Led Distribution



**VALUE CHAIN ACTORS**

- Retailer: Choices Markets (“Choices”)
- Distributor: Discovery Organics (“Discovery”)
- Producer: Myers Organic Farms (“Myers”)
- Producer: Olera Organic Farm (“Olera”)
- Producer: Tree Island Gourmet Yogurt (“Tree Island”)
- Producer: Green Dirt Farm (“GDF”)

### Orientation

Choices in Metro Vancouver procures 95% of supply from distributors/wholesalers and 5% direct from producer. Choices requires delivery on all of their orders. Discovery (located 0km from Vancouver) is one produce distributor that has been selling, for many years, a wide variety of produce to Choices. Both Myers and Olera (each located approx. 65km from Vancouver) sell their produce to Choices through Discovery as well as directly. Tree Island (located 200km from Vancouver) coordinates their own distribution network, leasing dedicated third-party vehicles and warehouse space to deliver to Choices. Green Dirt Farm (located 250km from Vancouver) leverages a third-party carrier to deliver to Choices.

The themes that emerged from the analysis of this case study are as follows:

<b>Successes</b>	Understood what product quality meant to buyers and met these standards in order to drive repeat business
	Reduced distribution expenses by taking control over leased dedicated trucks and warehouse space
	Partnered with a distribution entity with similar values
	Differentiated product to drive price premiums
	Strategized that fair & stable pricing is important to ensure the continuity and supply and to reduce overhead expenses
	Had a strong founder to champion the fair & stable pricing process
<b>Challenges</b>	Adopting GAP (SFCA) requirements while maintaining a similar price point
	Managing cost-effective producer-led transportation where the retailer requires more frequent deliveries at smaller volumes
	Price competition from imported product, to which SFCA requirements do not apply

## Marketing

Metro Vancouver has a highly competitive grocery landscape and Choices Markets is one of the best-known retailers of high quality local and organic produce. Nonetheless, Choices acknowledges that competition amongst retailers is fierce and that profit margins in are very thin. As a brick-and-mortar retailer focussed on a lower-volume niche market (rather than higher-volume mainstream markets), Choices indicates that their supply chain's number one success factor is protecting profit margins. The second success factor - in order to ensure repeat business from consumers - is ensuring a consistent supply of high quality products.

In Choices' experience, the consumer's willingness-to-pay is fixed, even within their niche premium market, so demand-side efforts to protect profit margins are limited. Due to the high cost of resources in Canada, and possibly due to lower farm efficiency (economies of scale) of small to medium-sized farms in comparison to industrial farms, local product has a higher purchase cost. Despite the fact that Choices indicates that their customer are highly motivated to shop by place of origin ("local"), Choices admits that their profit margins are lowest when bringing in the most amount of local product. Nevertheless, as part of their mission and as part of a retail differentiation strategy, Choices is committed to purchasing local food and engages in active marketing efforts to highlight local food in the store and drive the price premiums that are necessary for profitably selling local food. This tension between cost and delivering value is evident to all actors. GDF acknowledges that retailers are "in a fight to differentiate themselves" and that "buying local is one way to achieve differentiation" (Green Dirt Farm, personal communication, May 2, 2018). "Marketing presence on the shelf is what the consumer expects. It doesn't take much for the customer to make a purchase decision... simple marketing callouts are what make the sale" (Ibid). Both GDF and Tree Island invest in branding efforts on their packaging in order to call out their place of origin and company values. Tree Island terms these callouts, "Slow money slogans" (Tree Island Gourmet Yogurt, personal communication, June 1, 2018). Myers and Olera do not sell

products that are individually-packaged and have not developing marketing material that follows the products to the store. In order to support producer and retailers, Discovery has created in-store marketing materials that retailers can choose to feature next to product and communicate value chain ethos to consumers. Likewise, Choices mandates that store employees label all product on the store floor with place of origin. Local product has flashier signs and, on occasion, there are shelf talkers that feature the producer's story.

Another way for retailers to differentiate is to have exclusive or preferred supplier agreements, as explained by Choices. Being one of the few retailers in the city that can consistently offer a variety of fresh local food products for sale is not a simple feat, given high purchase costs. In general, produce prices are highly volatile and other than their top sell-through items, Choices is not often sure what will sell well in a few months, let alone in a few weeks. Therefore, long-range sales planning is difficult, which puts Choices in a more reactionary sales position, where profit margins are, on average lower, rather than proactive. While they are willing to take the occasional hit to profit margin on their top sell-through items in order to ensure that these items are always in stock, continuous upward pressure on product prices would be highly detrimental to the business. Choices indicates that any ability to plan long-term for sales helps the business better manage their cash flow and financial security. Discovery has been able to offer to Choices buying programs that provide consistent pricing and volumes over a period of time that spans several weeks or months. These buying programs are based on harvest projections by producers with whom Discovery has preferred supplier agreements and would not be possible without Discovery's commitment to fair pricing, championed by Discovery's director. Discovery aims to set prices that enable producers to cover their costs and are fairly predictable, with minimal variation throughout the season. Discovery has indicated that producers are, in turn, able to more effectively plan production against fairly stable demand forecasts, and are very willing to enter into this type

of forward contracting in order to guarantee sales. This is a realistic strategy for ensuring a stable supply of high-quality organic produce for Discovery and its buyers.

In order to maintain the credibility of their “local” and “sustainability” marketing claims, Choices lists implicit trust with supplier as a key enabler of selling local product in the fast-moving grocery business. As Tree Island put it, “big does not equal credible” (Tree Island Gourmet Yogurt, personal communication, June 1, 2018) and explains that consumers expect that small-scale producers will do what they say they will, with respect to production practices et al. Many of the actors in this case study cite a competent and visionary leader as an important enabler of their value chain. Both Discovery and Tree Island indicate that their leader was crucial in establishing new supply lines and fostering trust with producers/input providers, which leads to product differentiation and therefore real value behind their products. Discovery’s director, assists small local producers in scaling their operations sustainably and profitably, as well as developing new and unique certified organic and Fair Trade supply lines internationally. Tree Island’s co-founder successfully lobbied the Minister of Agriculture to increase milk supply transparency within the BC Milk Marketing Board, creating a way for dairy farmers that supply grass-fed milk to capture greater price premiums for the additional value of “grass-fed”. Added value is important for local suppliers, as it creates points of differentiation that producers can use to market themselves to buyers, but the added value must be credible and easily communicated. Certifications like organic and Fair Trade are such examples. Myers and Olera are both certified organic and find that, above and beyond consistent product quality, organic certification supports price premiums.

### *Transportation & Logistics*

Not all retailers and distributors are made equally. For highly differentiated product, it is important to select partners to work with who will maintain product differentiation so that price premiums are captured and shared amongst the value chain. It is also important to



understand the limitations of producer-owned distribution and to seek assistance when transportation costs are very high. As a retailer, Choices requires frequent deliveries of smaller volumes due to limited storage space at stores. Retailers expect quick order turnaround and consistent availability of supply.

In interviews, Myers and Olera both indicate the order delivery is expensive and time-consuming. Myers, given the production volume of their farm and delivery truck, also requires a MOQ in order to cover transportation expenses. Myers has indicated that pressure from buyers, such as Choices, to deliver smaller volumes more frequently makes planning transportation routes much more complicated. Furthermore, retailers are likely to favour producers who can respond more quickly to orders due to proximity over Myers, which challenges Myers' producer-led distribution system. In this case study, Discovery is an important actor who helps relieve the pressure of frequent deliveries to the retailer and communicates producer value. Discovery surveyed its retail customers and found that quality was the first criterion in picking a distributor; second, price; and third, product availability.

To provide a clear value proposition to retailers, rather than being a full-service distributor that sells everything a store needs, Discovery concentrates on organic, Fair Trade and local produce. Along with excellent customer service, Discovery offers a wide range of produce, which is convenient for retailers who can reduce the number of trucks at their loading docks on any given day. Discovery's director makes a point of working with small and new farmers to price themselves competitively and realistically, as well as suggest organic certification or higher prices when he feels that farmers can win larger premiums. Producers are not required to meet MOQs in order to sell to Discovery; consequently, barriers to entry for smaller producers are very low. Overhead costs are too high to operate a produce distribution only seasonally, moreover, there is high demand for produce throughout the year. Discovery states, "Our mission has always included supporting small local growers but

because we are first and foremost an *organic* and *Fair Trade* produce warehouse, we have to supplement wherever we can because there just isn't enough local product to fill the needs of what we are doing," (Discovery Organics, personal communication, February 27, 2018). With a mix of local and international supply, Discovery is able to sell local product when in season, such as Myers' and Olera's, to existing retailer accounts, and build up their resiliency to supply shortages.

Tree Island and GDF also agree that distribution costs significantly affect their profit margins and that, "controlling for distribution costs is the only real difference why some domestic food companies succeed over others," (Tree Island Gourmet Yogurt, personal communication, June 1, 2018). Tree Island and GDF use third-party carriers to distribute their product to buyers; in particular, Tree Island leases dedicated trucks and warehouse space. In these examples, volume and effective packaging is critical to achieving manageable shipping rates. GDF states that, "My shipping rates are [currently] 50% higher than the competition because I can't fill a truck," and, "We couldn't get distributors to carry our products unless we used clamshell packaging" (Green Dirt Farm, personal communication, May 2, 2018). Similarly, Tree Island's distribution costs are approx. 12% higher if they sell to a distributor, rather than managing their own distribution. GDF and Tree Island are able to successfully deliver to Choices because good packaging choices make their products easy to transport and brand and because they sell highly differentiated products that can justify their own distribution networks.

### *Product Quality Assurance*

Choices names product quality as the second most important factor to a successful business in retail. Whereas quality can mean many different things, Choices indicates that for their customers, the attribute of freshness is paramount. All other actors in this case study agree. To ensure freshness, most actors in this case study have set up their operations to

necessitate freshness by design. Choices has neither a warehouse nor a fleet of transportation vehicles. Each store has limited inventory space, which is intended to keep product fresher, by encouraging turnover and a more frequent order cycle. Both Discovery and Olera affirm this by stating that high product turnover is crucial to produce quality. Discovery enables high turnover by cultivating a large pool of buyers as a result of having a wide variety of products available for sale and excellent customer service. Olera uses a JIT production strategy to harvest and pack orders the day before delivery. Tree Island plans production based on a sales forecast so that freshly-made product is available for sale just a few days before it is needed. Tree Island astutely observes that retailers do not know what will sell well weeks in advance. While other yogurt producers in Canada are taking orders and producing yogurt with a two-week lead time, Tree Island indicates that their “freshness [has been] key to retaining business and getting new business” (Tree Island Gourmet Yogurt, personal communication, June 1, 2018).

It is worth noting that the Safe Food for Canadians Act is a nascent product quality assurance challenge facing the fruit and vegetable farmers in this research study. In order to manage risk and facilitate compliance to the SFCA, Choices is requesting that all of its produce suppliers become GAP certified. GAP certification lessens the inspection requirements of the SFCA and streamlines certain procedures. Because the “price point of sale is expected to remain the same,” (Myers Organic Farm, personal communication, March 5, 2018), Discovery, Olera and Myers all concur that this is a liability transfer onto producers, who need to make significant infrastructure and/or human resource investments in order to introduce GAP onto their farms. These infrastructure investments can be cost-prohibitive; for Olera and for Myers it means hiring an additional full-time employee in order to complete the required and ongoing paperwork. With limited funding available to food business by banks

and other lending institutions, as well as price points that do not absorb the additional costs created by the SFCA, Myers reveals that,

Middle to [small]-sized farms are closing their doors because they cannot afford to do the work to keep the SFCA in place. You have to recertify each year and the pressure to follow the procedures is unbelievable... Traceability is not rocket science... [Yet] you end up spending eight hours doing the paperwork instead of farming. (Ibid)

Olera delivers a similar sentiment:

GAP rules are designed by [government officials] who have never stepped foot onto a farm. I accept their science, but...I don't have the time nor formal education in order to provide the exact numbers that GAP is requiring. I have been successfully farming [for the duration of my adult life] without it... without ever a food safety complaint... Talking to other farmers, productivity is down [almost] 75% because of [GAP]... Our production costs are already higher [than that of imports] and small farms are going to become obsolete in the face of [stiffer] price competition. (Olera Organic Farm, personal communication, July 9, 2018)

Discovery is concerned about the supply risk that the SFCA poses, as the procedural requirements add costs that threaten the profitability of small to medium-sized producers. Within the confines of this case study, two interviewed farms, Olera and Myers, confirm this fear. Myers teaches food traceability at their local agricultural college and contends that traceability is a foundational procedure of all successfully operating farms. Like Discovery and Olera, Myers believes that the SFCA is well-intentioned but that its application is very costly and not practical for Canadian farmers to implement.

## 5.0 LESSONS LEARNED & CONCLUSION

### 5.1 Lessons Learned from the Value Chain Case Studies

Examined in the previous section, primary research findings on value chain actors and their case studies revealed key successes and challenges. These findings were evaluated against best practices found in secondary literature. As a result, a number of best practices and system innovations or interventions that can be considered for application to regional food distribution networks in Canada were distilled and are presented in the following section.

#### 5.1.1 Lesson #1: Product Quality is Paramount & Defined by End Buyers

##### *Overview*

In secondary literature, interviews with grocery retailers affirm that produce is the department which determines where consumers shop. It is also the most profitable (Gooch, Marenick, Martin, Schmidt & Simo, 2012). In the same research, place of origin alone is not enough to influence consumer purchasing decisions. Product quality is paramount, succeeded only by competitive pricing. In the primary research, all value chain actors agree that product quality is paramount and attribute it to one of their top two success factors.

##### *Lessons Learned*

Consumers expect product with regional appeal to meet their definitions of quality - which look more like mainstream attributes of quality than they do of the realities on a farm. Consumers are more likely to purchase food that is consistent in size and appearance (Fearne & Hughes, 2000; Collins, 2003b; Gooch et al., 2012). This statement is echoed by most actors, who assert that getting consumers to understand that local product has cosmetic differences is a challenge. For most producers interviewed, direct-to-consumer (e.g. Farmers Markets) is the market from which their business originates. Farmers Market customers

define product quality using traits such as flavour, production methods and unique colours and shapes, which is different from the mainstream (Kate Sutherland & Associates, 2011).

All actors interviewed for this paper describe product quality using adjectives such as “tasty”, “unique”, “healthy” and “fresh”. Product quality is, more often than not, attributed to production methods (sustainable: natural inputs, diversified planting, at a human pace) by producers, whereas retailers and distributors attributed product quality more frequently to freshness, consistency and storage capabilities. This may indicate that consumers define quality using the latter three attributes, as retailers are focusing on it.

Secondary literature supports that inconsistent quality creates unnecessary logistical costs throughout the supply chain. There exists a perception in secondary literature that quality assurance rests on the producer until it reaches the store (Gooch, 2005). In the primary research, both retailers indicated that ensuring product shelf life should be the responsibility of the producer. To accomplish this, appropriate post-harvest processing, packaging and continuous cold chain support (where applicable) is necessary (Gooch, Marenick, Felfel and Vieira, 2009). Three of four producers cite post-harvest processing and on-farm cold storage as success factors; the fourth, Tree Island, produces yogurt and indicates that the automated yogurt filler and continuous cold chain enable them to achieve consistent product quality. GDF was the only producer to explicitly call out (clamshell) packaging as critical to their success. Without it, distributors refused to carry their product.

Once the consumer-defined attributes of product quality are achieved (freshness, consistency and storage capability), regional producers can also use the product’s place of origin and sustainable methods of production as additional signifiers of quality and value. This is made possible by consumer demand. However, the less local the product becomes, the more important third-party verification becomes in assuring the final customer of the qualities of the product (Blanchard, Flying Rutabaga Works & Rock Spring Farm, 2012). Tree Island

has observed that the farther the retailer is from Tree Island's place of origin, the more diluted their brand message about being a family-run, small-scale BC producer becomes. This dilution expresses itself in the form of fewer preferred supplier arrangements and increased imposition of listing fees. Likewise, Choices observes that their consumers are highly motivated to purchase local products, but unless the products are labelled in-store with the place of origin, consumers will gravitate first towards products that are certified organic and priced competitively. All produce farmers interviewed for this paper are certified organic.

In order to support food safety, as an aspect of product quality, traceability is of outmost importance to retail buyers (Diamond & Barham, 2012). Traceability is the ability to trace back individual lots of product to its production source. All value chain actors interviewed support and manage traceability in their supply chains. However, in response to buyer demands, and in light of the newly-minted Safe Food for Canadians Act (SFCA), GAP certification is increasingly being requested of producers. Choices is one example of such a buyer. This topic is discussed in further detail in *Challenges*.

### *Challenges*

With increasing publicity given to food scares and recalls, the overwhelming concern in the fresh fruit and vegetable sector is presently food safety risk management. Retail grocery chains are looking for greater assurance that the food they are buying is safe - or, at the minimum, assurance that it is grown, handled and processed using practices designed to minimize the chance of contaminating produce with pathogens (Diamond & Barham, 2012). This trend is remarked upon by all interviewed value chain actors involved with the trade of fresh fruit and vegetables. There are varying responses to this issue. The first is the regulatory response, such as the Safe Food for Canadians Act, entrenched in government policy and enforcement. The second is the response by the biggest retailers. The small- to medium-sized producers and the value chains that support them are caught in the middle.

Olera estimates that their productivity will drop by up to 75% as a result of introducing GAP protocol and that the necessary preliminary upgrades will total \$25,000, which is a significant cost. Olera is also concerned that GAP protocol will undermine their business philosophy, as the protocol is extremely prescriptive and limits certain activities in the name of food safety that Olera feels are necessary to employee wellbeing (such as restricting employee water bottles from fields). Similarly, Myers estimates that they will need to hire an additional full-time staff member to manage the paperwork - administrative overhead that will need to be absorbed by the existing product margin. Therefore, producers will need to take a long hard look at the costs of implementing and maintaining GAP certification. While certifying may allow them to continue to sell to buyers who demand GAP certification, the market benefits of GAP need to outweigh the direct and indirect costs.

### **5.1.2 Lesson #2: Get External Support with Distribution Logistics**

#### *Best practice overview*

Small to mid-sized producers often do not have the capacity nor capital for proprietary distribution systems. Buyers or groups of producers who can fill this crucial infrastructure gap, while encouraging producers to maintain and even capitalize on their own identities, is crucial to successful regional food distribution networks (Stott, Lee & Nichols, 2014a).

#### *Lessons learned*

As a first option for distribution, it can be prudent for producers who do not have their own trucks (or even those who do) to participate in logistics agreements with other producers to plan routes more cost-effectively. This arrangement is advantageous for many small to mid-sized producers who cannot yet reach wholesale volumes on their own or, do not wish to invest in trucks to transport or warehouses to store their product, but still want to maintain direct relationships with their retail buyers (Diamond & Barham, 2012).



A second option is to partner with a distributor who shares similar values around source identity preservation, fair pricing and product quality assurance (Stott, Lee & Nichols, 2014a). Discovery has filled this role for producers Myers and Olera in a formal capacity. Producer Myers also does drop-ship for other producers in their municipality at no cost, in an informal capacity. By aggregating product from multiple producers, aggregators achieve economies of scale at various points throughout the distribution process. Not only is it freeing of time, and often money too, to hand off the responsibility of transportation to another business, it is also helpful for retailers who want to buy product from local producers but would rather not have a dozen different trucks with small deliveries arriving to their docks. Each delivery requires receiving and billing resources on the part of the retailer, so one drop rather than multiple is almost always appreciated by retailers (Blanchard, Flying Rutabaga Works & Rock Spring Farm, 2012).

A third option is for the producer to lease vehicles from a third-party carrier to organize their own distribution. Leasing third-party carriers in order to develop producer-driven distribution networks can serve well the constantly shifting demands of small to medium-sized producers. Logistics and routes can be organized as per the producers' needs and leasing guarantees that a working vehicle will always be available because the leasing company is responsible for all repairs and replacements (Diamond & Barham, 2012). Transportation is normally always a problem for small to medium-sized producers if they are in a remote location. As evidenced in both case studies, Tree Island and GDF are located more than 200km away from some of their major buyers. When having outsourced distribution to a distributor, half-empty trucks on their routes led to high operational costs. Both producers moved, or are in the process of moving, towards producer-led distribution, leveraging third-party carriers. Tree Island captured back over 10% of their profit margin by organizing their

own distribution; likewise, GDF expects to capture back 50% of their profit margin. Both producers qualify that a certain level of sales volume is necessary for this method to work.

Often just as important as the quality of the product being sold, is the quality of service provided by the value chain partner making deliveries. Quality service involves the timely communication of product availability and order status and fulfilling orders on-time (the right product on time and in full). A high-quality value chain partner consistently gets this right, which upholds and furthers the added-value differentiated product claims in the market (Stathopoulou, Psaltopoulos & Skuras, 2004; Diamond & Barham, 2012; Blanchard, Flying Rutabaga Words & Rock Spring Farm, 2012). Discovery named high quality customer service as one of their main differentiators from their competition and a driver of repeat business. Likewise, did SPUD and Olera. As an example, if the quality of a product in a SPUD order is poor and the customer complains to SPUD, a SPUD staff person will investigate the problem and in most all cases will provide replacement product, free of charge. This commitment to quality is essential to SPUD's operational culture. Finally, Tree Island explicitly highlighted the value of a delivery driver who represents the brand well during deliveries to buyers. A clean truck, on-time and in-full deliveries and a friendly driver who is informed of the brand and key contacts presents a streamlined and strong company front to buyers.

### *Challenges*

Typically, once product is aggregated it is no longer identified with its producer. To capture a premium, buyers and consumers need to know about the unique origins of regional food and how it is grown. Aggregating product with other producers and/or deferring responsibility of distribution to another business will pose challenges for product quality, consistency and traceability, all of which have significant implications for food safety (Day-Farnsworth, McCown, Miller & Pfeiffer, 2009). In addition, product aggregated by a value chain partner means that the partner's identity will in part become the identity of all of the

producers participating in this scheme. Therefore, it is very important to work with trustworthy partners (Blanchard, Flying Rutabaga Works & Rock Spring Farm, 2012). All three buyers listed implicit trust with suppliers as key success factors. Producer Myers indicated that source identity loss at the store-level detracts from product differentiation.

Local product was also described in primary research by buyers as lacking storage and transportation capabilities. At the core of any successful distribution model serving smaller scale producers is the ability to effectively coordinate production and aggregate products in a way that can satisfy a buyer's volume requirements, quality standards, and need for consistent and timely deliveries (Gooch, 2005). Producers will need to be careful in selecting packaging to increase distribution efficiency and could possibly benefit from pooling on-farm capital to ensure that post-harvest processing is accomplished to extend product shelf life.

### 5.1.3 Lesson #3: Differentiate in Order to Negotiate

#### *Best practice overview*

Regional food value chains require some type of product differentiation - that is: product origin; a unique/rare variety or benefits; or special production practices, such as organic. Taking the time to develop, market and sell differentiated products directly to local retailers can result in higher prices and better negotiating positions for suppliers than they would otherwise receive in conventional supply chains (Diamond & Barham, 2012).

#### *Lessons learned*

By differentiating product and maintaining its integrity, producers are able to create marketing claims and thereby establish stronger negotiating positions with existing buyers. Differentiation can also offer access to new markets for producers, whereby telling the producers' personal story adds value to the product, encouraging brand loyalty and driving demand (Felfel, Gooch, Marenick & Vieira, 2009a). Producer GDF expresses that, "the

consumer demographic in BC is what makes a small business, like me, successful at getting off the ground... Substantial pockets of consumers want local” (Green Dirt Farm, personal communication, May 2, 2018). In the same vein, retailer Choices affirms that, “consumers really want to know where product comes from, so we label all of our products with place of origin on the floor” (Choices Markets, personal communication, February 17, 2018). And, “one way to differentiate yourself from other retailers is to have...contracts with producers who have highly differentiated products” (Ibid).

Product differentiation relies on attributes such as place of origin, producer identity, production method, perception of scarcity of supply, perception of nutritional value and health benefits (Felfel, Gooch & Marenick, 2010; Gooch, 2005; Gooch, Marenick, Martin, Schmidt & Simo, 2012). Producer Tree Island may speak for all actors interviewed when they say, “our marketing comes down to values, basic integrity...size and relationship” (Tree Island Gourmet Yogurt, personal communication, June 1, 2018). Product differentiation can be communicated via packaging, advertising strategies (websites, print materials and social media) and recognized certifications. All value chain actors interviewed for this paper engage in some form of product differentiation. All value chain actors use place of origin as a differentiator.

### Table 7: Advertising slogans of Value Chain Actors Interviewed

Source: Business websites for each actor.

Actor	Advertising slogan
Choices Markets	Your local organic grocery store
SPUD	Local and organic groceries delivered
Discovery Organics	BC’s leading independent organic produce distributor
Myers Organic Farms	Family-run, local and certified organic producer of fresh fruit & vegetables
Olera Organic Farm	One of the founding certified organic farms in Lower Mainland BC
Green Dirt Farm	Greens grown organically and veganically in Lillooet, BC
Tree Island Gourmet Yogurt	Gourmet cream-top yogurt made from 100% British Columbian grass-fed milk

Producers GDF and Tree Island sell products (ready-to-eat salad greens and yogurt, respectively) for which individual packaging is necessary for storage and quality assurance. Both producers invest in branding in order to tell their personal stories via packaging. GDF explains, “Marketing presence on the shelf is what the customer expects. It doesn’t take much for the customer to make a purchase decision, based on marketing efforts. Simple callouts are what make the sale” (Green Dirt Farm, personal communication, May 2, 2018). In the case studies examined, all value chain actors displayed a willingness to develop a unique brand identity that reflects the core values of their company and to live by its standards. All three buyers felt that by selling highly differentiated product they were able to distinguish themselves from their competition and capture a larger market share than otherwise.

At a local or regional level, given proximity and relevance, producers are better able to establish a direct relationship with retailers and even consumers than would otherwise be the case if they were selling product to a typical wholesale broker or re-packer. With this closer relationship, producers can better guide their marketing efforts, taking control of their value. This makes food producers, selling their products within their regions, particularly well-suited to leverage their product’s place of origin as a point of differentiation. In the typical conventional supply chain transaction, producers would not be able to differentiate their product based on personal story or production characteristics, since products are aggregated *en masse*. In a conventional supply chain, commodification of the product enables the distributor and/or broker to switch suppliers with ease in order to deliver consistent volumes at the lowest expense. This is one of the major reasons producers are unable to command a premium price (Diamond & Barham, 2012). Tree Island affirms that, “as our product travels farther away [from our place of origin], our story about being a small family-run local business becomes more diluted and less valuable. When this happens, we end up paying listing fees

and receiving less preferential treatment from buyers” (Tree Island Gourmet Yogurt, personal communication, June 1, 2018).

To ensure the credibility and integrity of the product differentiation, value chains must be traceable to the source of production. Critical as it is to food safety, preserving the source identity of regional products has also been shown to be vital to driving buyer and consumer demand, as evidenced in secondary literature. Source identity preservation expresses itself at varying levels of granularity. Some individual producers find success with segregating their particular lots of a particular product from other producers; others find success as a group of producers, presenting a particular crop with a common identity. For producers Myers and Olera - their products are not sold individually wrapped, which is an obstacle to differentiation. Myers indicates that when “product is mixed like a commodity at the store-level... all traceability is lost anyways” (Myers Organic Farms, personal communication, March 5, 2018). SPUD, on the other hand, presents individual producer identities at the store-level by designating separate pick locations per producer and advertising individual producer products separately. This offers consumers the choice between producers, which can mean the difference between choosing local over imported.

### *Challenges*

Some methods of product differentiation increase the value consumers perceive. However, some methods also add costs, such as organic certification. It is difficult to separate the additional profits earned by the producer for organic certification from the premium earned for the added value of an authentic story about being local, sustainable and small. Stories certainly help create advantageous positions within the market (Feenstra, Visher and Hardesty, 2011). Although Tree Island is not certified organic, they use grass-fed milk and are a small and local family-run food business. Tree Island explains that, “people have lost faith in big corporations,” so that as a result of their values-based branding, “we are a nice company,

which attracts nice business” (Tree Island Gourmet Yogurt, personal communication, June 1, 2018). This is one example of where storytelling and transparency about production practices supersede third party certification as a means of product differentiation.

Regional producers face plenty of options for how to market their products but they do need to take a personalized approach to identifying consumer perceptions in their surrounding markets before deciding whether the return from investing in certain attributes is worth the additional cost. As says Olera, “I need to decide whether or not to adopt GAP in order to keep my core buyer” (Olera Organic Farm, personal communication, July 9, 2018). There is no one-size-fits-all approach.

#### 5.1.4 Lesson #4: Fair & Stable Pricing as a Strategy

##### *Best practice overview*

Buyers who negotiate relatively stable prices with their suppliers generate the potential to even out price variations across periods of limited and abundant supply and create strong, enduring partnerships. If successful, such partnerships embody how value chains can induce greater cooperation between buyers and sellers with the promise of increased gains for all the actors in the chain (Diamond & Barham, 2012).

##### *Lessons learned*

Local, seasonal product with a story is more expensive to source (than conventionally-produced and sourced food) and the supply fluctuates widely. Small to mid-sized producers are often not ready to collaborate on planting schedules and forward contracting with buyers (Blanchard, Flying Rutabaga Works & Rock Spring Farm, 2012). This is echoed by retailer Choices, who states that, “the company is the least profitable when bringing in the most amount of local product” (Choices Markets, personal communication, February 17, 2018). As a perennial business, retail grocery does not tolerate well persistent shortages in supply or

costs beyond what the consumer is willing to pay. Because profit margins in retail grocery are very thin, in order to stay in business, and offer for sale the products that consumers are demanding, buyers need alternative - usually more conventional - supply in order to spread the greater overhead costs across a larger volume of product and customers (Collins, 2003a).

Vendor relationships take time to develop and because the perishability of food requires frequent coordination between producers and buyers, buyers can be reluctant to change procurement patterns that have already proven themselves to be reliable, consistent and profitable (White, 2000). Many buyers enter into preferred supplier arrangements with these suppliers, which further increases friction to switching to a new supplier. However, what producers and retailers share is the desire for consistent volumes and prices, which can create highly favourable conditions for sale. Choices states that, “90% of our buys are short-term because we are just reacting to what the [supplier] is selling...We would be willing to pay more to the producer to keep their business for the entire season...buying programs that ensure consistent volume and price enable longer-term sales planning and protect our financial stability” (Choices Markets, personal communication, February 17, 2018).

Buyers who support fairly predictable prices that cover producer costs foster a pragmatic strategy for ensuring a stable supply of high-quality products (Diamond & Barham, 2012). Producers who are able to win premiums and secure advance orders display much loyalty to such buyers. The production lead time for most food (especially produce) is long and the ability of producers to plan production against a fairly accurate sales forecast generates much stability for the entire value chain. Tree Island explains of its production planning: “We provide our milk suppliers with forecasts and commit in advance of production to the minimum required for our core recurring customers so that we don’t let them down when they order... by planning for their demand, we have product already stocked when the orders come in.



Contrast this to our competitors, who take orders and then need a two-week lead time to make the product” (Tree Island Gourmet Yogurt, personal communication, June 1, 2018).

On the question of how to set prices, negotiation between buyers and producers is crucial. It is very important that the flow of information travel in both directions so that buyers can offer feasible pricing to consumers, capturing a realistic share of the marketplace demand, and so that producers have a chance to modify pricing to avoid losing business (Food Chain Centre, 2005). Discovery embodies these principles by assisting producers with realistic price setting (even when producers are underpricing themselves) and conversion to organic to win premiums. Discovery even goes above and beyond by suggesting to producers what to grow, based on what is selling well in the market. They may develop a business case for the producers and front them the cash at the beginning of the season in order to purchase inputs.

### *Challenges*

As the present market for local and sustainable food continues to expand, product pricing is being depressed by “bottom line” buyers, such as conventional supermarkets and food service. Downward price pressure exerts influence on value chains to reduce costs in order to stay competitive as the market expands. Concurrently, product differentiation increases in importance as a tool to maintain price premiums. Regional sustainable and values-based producers will be challenged to assert their value and the credibility of their claims as larger conventional producers find ways of making similar marketing claims without fundamentally supporting the processes that are the basis for how the claims are perceived by consumers (Feenstra, Visher & Hardesty, 2011; Blanchard, Flying Rutabaga Works & Rock Spring Farms, 2012). Producers GDF, Olera and Myers all agree that the production costs in Canada are much higher than that of imports; pressure from imports and the price competition is one of the biggest challenges facing Canadian farmers. Olera adds, “To even out the playing field

between domestic and imported product, tariffs on imports may be necessary” (Olera Organic Farm, personal communication, July 9, 2018).

The environmental barriers to guaranteeing a stable supply of local products cannot always be overcome by fair pricing nor production methods. In most parts of Canada, regional food production is seasonal. Individual regional producers are normally restricted to distributing a limited product line during a limited period of the year, while retail grocers must offer food for sale year-round in order to stay in business. Thus, buyers must diversify their exposure to risks associated with weather by sourcing supply (inter)nationally. Sourcing product internationally often means participating in the industrial food system from which there is stable supply and competitive pricing year-round. It can be difficult for producers to try and “interrupt” these long-term relationships and offer for sale products that are of the same variety and more expensive (Diamond & Barham, 2012). For groups of producers or wholesalers who source locally, significant variation in growing conditions, methods and operating margins may be encountered. This makes basing pricing on the cost of production very difficult. Discovery counters this by operating by a preferred supplier arrangement and by sourcing supply products that are different than what is offered locally from the southern hemisphere, where the harvest season is at the opposite time of year from the northern hemisphere. When local supply is not available, Discovery imports fair-trade and organic produce to keep the business going. They have been operating this way for over 20 years.

The question of setting prices fairly may involve more elements than just the cost of production. Selling a product at cost is known as selling at the break-even price, below which most producers would rather compost product than put in time and energy into finding buyers. Most producers desire to sell their products at a target price. This target price may vary if you are a high-volume producer who will accept a lower target price for the stability of a secure and predictable buyers’ market over time, in contrast to a smaller-scale, lower-volume

producer who needs a higher price to be satisfied. Then there is the performance of the market, which depends on more macro-level factors that may surpass or fall short of even the break-even price at any point in time. This is known as the spot price (Diamond & Barham, 2012). Moving beyond spot pricing towards long-season pricing, as Discovery demonstrated, helps producers plan ahead, estimate what their income will be relative to their expenses and avoid making hasty decisions in response to an unpredictable market. Retail buyers are likely to participate in such price setting schemes if they are able to gain market access to rare and/or highly differentiated products or when they receive a price break from producers when supply is higher than expected. This effort to move beyond the vagaries of the market and to recognize and advance the needs of both buyer and seller helps develop partnerships and increase business stability for both actors (Diamond & Barham, 2012).

## 5.2 Conclusion

Given the explorative case study approach employed, the findings of this paper do not apply to the full range of existing regional food producers and buyers in Canada. Nevertheless, they do provide valuable insights for organizations that are currently, or intend to be, engaged with regional food value chains. All regional food value chains can benefit from the lessons learned in this paper (the appropriate level of capital investment, product differentiation, product quality assurance, food safety concerns, and how to best manage transportation and logistics) in order to build a financially sustainable model that can meet the changing demands of consumers and bring positive returns to the actors.

In other words, no report of this nature can provide the specific answers on how exactly to run a regional food value chain, but looking at what is working and what is not can help inform approaches and shorten the learning curve for new value chain entrants.

### **Recap of the problem & research objective**

This paper has provided examples of how distribution activities are central to maintaining a robust food economy that provides consistent supply to meet consumer demand. The current mainstream distribution network is fragmented, complicated and rigid in its design (Hild, 2009). Mainstream distribution networks that are large and established operate independently from one another with long-established supplier relationships based on low cost, high volume and consistent supply. Thus, small to medium-sized producers are faced with high barriers to entry and must build relationships with regional distributors and wholesalers to gain market access, if not operate and take on the costs of their own distribution.

The research question with which this research began was:

*What are some of the critical elements of successful distribution networks in Canada that support the sale of sustainably-produced food from small to medium-sized producers to buyers within the same region, at scale?*

Knowing from secondary research that alternative distribution networks also serve the market, but lack the scale advantages and consistent supply that the mainstream networks enjoy, I set out to understand the factors affecting distribution such as each value chain actor's operating environment, their marketing and sales, transportation and logistics, product quality assurance and their success factors and challenges.

### **Research approach**

The approach to evaluate value chain performance was to understand how and why a value chain is managed in a certain manner and from where its structure originates. It is important to understand the businesses ("actors") that comprise the value chain and the factors which determine the nature of the business relationships that lead value chains to succeed in creating profits and market opportunities for all actors involved. With this in mind,

a value chain development framework was used. Yet, the criteria of sustainable and regional were also used in order to narrow the scope of research to manageable proportions. The concept of value chain development emerged from the recognition that substantial, continual and fair improvements in system design and performance can only occur when businesses seek closer coordination and integration with suppliers and customers than mainstream transactional buyer-seller relationships allow (Sparling & Thompson, 2011).

To start, this study reviewed secondary literature on sustainable regional food value chains and regional distribution network development to identify best practices in North America. Then it looked at two value chain case studies in Canada and interviewed each of the individual actors, using a semi-structured qualitative interview approach. An exploratory case study methodology (as described by Yin, 1984) was used to analyze the primary research findings. Interviews were coded for themes and the results were induced from therein. A final comparison of best practices found in secondary literature against what was found in the primary research concluded this paper.

### **Research findings**

#### **Product quality is paramount & defined by end buyers**

Despite existing market challenges, strong consumer demand for regional and sustainably-produced food provides incentives for producers to enter the market and carve out a niche for themselves. Key to their success is a willingness to understand consumer perception of product quality, gaps in retailer's supply, and to produce product that meets these criteria. Buyers and sellers of regional sustainably-produced food do well to communicate this value to consumers via packaging, visual appearance and in-store marketing materials in order to differentiate this product from the rest. Consumers are fairly quick to make in-store purchase decisions and while they were found to be primarily

motivated by price, effective communication of added-value and visual product differentiation helps enormously to sway consumers to make a values-based purchase choice.

### Get external support with distribution & logistics

Production, storage and transportation infrastructure was found to be a success factor in enabling producers with access to market opportunities, but the added cost can be highly prohibitive. Value chain actors who found ways to share capital infrastructure and/or operating costs benefitted, as did the retailers who as a result fostered supply that helped them differentiate themselves to consumers within the retail grocery landscape.

### Differentiate in order to negotiate

While numerous sustainable and regional food producers are enjoying success in Canada, they are a clear minority. International industrial producers dominate the Canadian market, as their low cost of production and savings from economics of scale provide for a distinct competitive advantage in the market. Inherent to the name, value chains are the result of a value base and added value to the rudimentary structure of food supply chains.

Consumers are increasingly purchasing local (value-added) products because of their quality and perceived health and socioeconomic benefits. Recognition of implicit value in sustainably-produced regional food translated into a higher willingness to pay. While such producers may be perceived to be enjoying higher economic returns as they create more such products that satisfy consumer demand, a higher purchase cost is actually necessary to cover the costs of domestic production and distribution, which are higher in Canada than internationally. Therefore, value chain development is also a useful framework for creating competitive advantages in the market and capturing market share.

### Fair & stable pricing as a strategy

Finally, due to environmental factors in Canada that limit year-round supply, buyers of regional food find it necessary to source products internationally in order to provide consistent

year-round supply to consumers. This approach is pragmatic in nature and does not inherently detract from building up regional food networks. Locally-sourced, seasonal product with a story is more expensive to source in comparison to conventional supply and supply fluctuates widely. To satisfy consumer demand for local food, buyers and suppliers who reach pricing agreements that ensure consistent volumes and prices enable longer-term sales planning for both parties and protect financial stability. This practice may also attract new entrants and encourage existing actors to stay.

### *Challenges and further research opportunities*

Actors within regional food value chains face a myriad of challenges when supplying to urban centres. Variations in weather, transportation logistics, customer demand and perceptions of quality, as well as food safety concerns form the basis for food supply chains. Moreover, regional producers often face significant financial and access to capital obstacles to effectively compete against cheaper, imported food products. To top it all off, building regional capacity for food production and distribution is especially challenging when regulations increase costs and friction for producers trying to supply to urban markets that have more than enough purchasing options from abroad.

The regulatory framework in Canada is complicated, given three separate levels of government involved with regulating food businesses. Appropriate processing and handling procedures, continuous cold chains and product traceability must be put into place to help mitigate public health issues and to adhere to regional and national laws and policies. Although not an explicit focus of my research (food safety was discussed briefly under the topic of product quality assurance), my primary research findings indicate that regulation does have a big impact on regional value chains in Canada. Further research on the possible negative effects of new laws such as the Safe Food for Canadians Act on small to medium-sized food producers in Canada is required.

# 6.0 APPENDIX

## Appendix A

### Interview Questions for Buyers

#### Orientation:

1. Which urban (pop. 100K+) markets do you serve?
2. Who are the regional producers (or distributors/wholesalers) with whom you do business?
3. How do you source new regional producers?
4. Do you face any supply-side challenges in meeting the demands of your customers? (Volume/assortment)

#### Buying:

5. How are you informed of product availability from these regional suppliers?
6. How do you currently order food direct from these regional suppliers?
7. How do you transact payment with these regional suppliers?
  - a. Payment terms?
8. Do you require any product listing fees?

#### Transportation/Logistics

9. How is regional product delivered to you?
10. How do you store regional product?
11. How do you manage your orders & inventory numbers?
12. Do you provide any distribution-type services to the regional suppliers from who you buy? Please describe. Please indicate if you charge a fee.
13. How significantly do distribution costs affect your product margin?

#### Product Quality Assurance

14. How do you assure product quality?
15. How do you assure source identity?
16. Do you experience regulatory challenges?

#### Success Factors/Challenges



17. What are key factors that contribute to you successfully ordering, receiving and storing regional product for sale?
18. Tell me about ordering, receiving and storage challenges you are facing?
19. How could these challenges be overcome/improved?

*My research is predicated on linked case studies. Can you introduce me to other businesses in your supply chain?*

## **Interview Questions for Producers**

### **Orientation:**

1. Where is your primary place of business and production located?
2. Which urban (pop. 100K+) markets do you serve?
3. Who are the regional retailers and/or distributors/wholesalers with whom you do business?
4. How do you source new regional buyers?
5. What types of products do you sell?
6. Do you face any supply-side challenges in meeting the demands of your customers?  
(Volume/assortment)

### **Marketing:**

7. How do you inform your regional buyers of your product availability?
8. How else do you market your product for sale?
9. How do you transact payment with these regional buyers?
  - a. Payment terms?
10. Do you require any minimum order quantities?

### **Transportation/Logistics**

11. How is your product delivered to your regional buyers?
12. How do you store regional product?
13. How do you manage your orders & inventory numbers?
14. Do you provide any distribution-type services to other producers in your region?  
Please describe. Please indicate if you charge a fee.
15. How significantly do distribution costs affect your product margin?

### **Product Quality Assurance**

16. How do you assure product quality?

17. How do you assure source identity?

18. Do you experience regulatory challenges?

### Success Factors/Challenges

19. What are key factors that contribute to you successfully marketing, selling, and distributing regional product for sale?

20. Tell me about marketing, selling and distribution challenges you are facing?

21. How could these challenges be overcome/improved?

*My research is predicated on linked case studies. Can you introduce me to other businesses in your supply chain?*

## Appendix B

### Success Factors & Challenges Matrix for Case #1 (Section 4.2.1)

Category	Factor	Freq.	Value
Governance	Leader competent in agronomy & sales	1	Strength
	Ability to effectively lobby the government for policy changes (i.e. increase milk supply traceability)	1	Strength
	Trusting relationships with suppliers	1	Strength
	Land ownership secures tenancy and increases autonomy	1	Strength
	Securing additional land/financing to expand production	2	Challenge
	Compliance with new regulation (e.g. SFCA/GAP) will hurt profitability	2	Challenge
	Recruiting farm labour	1	Challenge
	Strict credit payment terms necessary	1	Challenge
Marketing	Organic certification & maintaining source identity at point of sale increases differentiation	4	Strength
	Active communication with consumers to understand trends	3	Strength
	Canadian demographic supportive of local food	2	Strength
	Excellent customer service	2	Strength
	Hedging raw milk supply to ensure consistent volume to buyers	1	Strength
	Farm size enables consistent supply	1	Strength

	Price competition from imported produce	2	Challenge
	Lack of innovation in Milk Marketing Board due to closed system	1	Challenge
	Supply-managed dairy industry limits supply volume	1	Challenge
	Seasonality in Canada limits local supply & detracts from "local" product offering	1	Challenge
	Sourcing local supply that satisfies new consumer trends	1	Challenge
	Accurately forecasting consumer demand	1	Challenge
	Getting consumers to understand that local product has cosmetic differences	1	Challenge
	"Local" as a differentiator only useful near production origin	1	Challenge
<b>Transportation &amp; Logistics</b>	Pool storage/transportation capital to reduce costs and increase value to buyers	2	Strength
	Quick order turnaround	2	Strength
	Pick-to-order reduces waste	2	Strength
	One central warehouse location to which all supply is delivered & from which all orders are fulfilled... increases distribution efficiency	1	Strength
	Controlling distribution network logistics	1	Strength
	Multiple suppliers for the same product reduces stock-outs	1	Strength
	High costs of transportation	3	Challenge
	Order delivery is time-consuming	2	Challenge
	Extreme weather conditions	2	Challenge
	Being required to deliver less volume (<MOQ) more frequently	1	Challenge
	Lack of buyer distribution support	1	Challenge
	Unique crops are challenging to store & transport	1	Challenge
<b>Product Quality Assurance</b>	Continuous cold chain	4	Strength
	Traceability	4	Strength
	Perform QC checks often to consistently meet consumer expectations	3	Strength
	Post-harvest processing & on-farm cold storage	2	Strength

Local product lacks storage & distribution capability due to poor packaging choices	1	Challenge
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### Success Factors & Challenges Matrix for Case #2 (Section 4.2.2)

Category	Factor	Freq.	Value
<b>Governance</b>	Competent & visionary leader	3	Strength
	Trusting relationships with suppliers	2	Strength
	Willingness to be flexible & adapt to market demands	1	Strength
	Land ownership secures tenancy & increases autonomy	1	Strength
	Ability of suppliers to comply with new regulation (e.g. SFCA/GAP) and maintain profitability is a risk	3	Challenge
	Securing additional land/capital to expand production	2	Challenge
	Recruiting farm labour	1	Challenge
	Strict credit payment terms necessary	1	Challenge
	Being sold on commission or being taken advantage of by brokers	1	Challenge
<b>Marketing</b>	Active communication with buyers to understand market & needs	3	Strength
	Organic & Fair Trade certifications command premium prices	3	Strength
	Excellent customer service	3	Strength
	Developing new (international) supply lines & new products with existing producers increases differentiation	2	Strength
	Differentiated story/packaging	2	Strength
	Exclusive supplier agreements increase differentiation	2	Strength
	Canadian demographic supportive of local food	2	Strength
	Maintaining product place of origin/source identity at point of sale increases differentiation	1	Strength
	[Larger] farm size enables consistent supply	1	Strength
	Hedging raw milk supply to ensure consistent volume to buyers	1	Strength
	Making always available for sale & protecting profit margins on top 20 sell-through products	1	Strength

	Fair pricing ensures consistent supply	1	Strength
	Buying programs that ensure consistent price & volume over time	1	Strength
	Getting consumers/buyers to buy-into cosmetically different local produce	4	Challenge
	Price competition from massive corporations/imports	3	Challenge
	Produce prices are highly volatile, which hinders long-range sales planning	1	Challenge
	Consumer willingness-to-pay is fixed so demand-side efforts to absorb rising costs are limited	1	Challenge
	Supply-managed dairy industry limits supply volume	1	Challenge
	Seasonality in Canada limits local supply volumes	1	Challenge
	Lack of innovation in Milk Marketing Board due to closed system	1	Challenge
	"Local" as a differentiator only useful near production origin	1	Challenge
<b>Transportation &amp; Logistics</b>	Sharing capital (storage & transportation) costs to enable local supply distribution	3	Strength
	Quick order turnaround	2	Strength
	Controlling distribution network logistics	1	Strength
	JIT production methodology decreases inventory waste	1	Strength
	High costs of capital/transportation	3	Challenge
	Large distances to cover by truck for product pickup & order deliveries	3	Challenge
	Order delivery is time-consuming	2	Challenge
	Extreme weather conditions	2	Challenge
	Being required to deliver less volume (<MOQ) more frequently	1	Challenge
	Lack of buyer distribution support	1	Challenge
	Insufficient supply volume to command more favourable FTL shipping rates	1	Challenge
<b>Product Quality Assurance</b>	Traceability	4	Strength
	Continuous cold chain	4	Strength
	Consistency in product quality that meets consumer expectations	3	Strength

Post-harvest processing & on-farm storage	2	Strength
Clamshell packaging for ease of transport & storage	1	Strength
Limited storage space at stores ensures that product is ordered often, rotated frequently and therefore very fresh	1	Strength
Semi-automation of PQA (ozone & real-time temperature monitoring)	1	Strength
Poor post-harvest practices make PQA at warehouse challenging	1	Challenge
Local product lacks storage capability due to post-harvest practices & poor packaging choices	1	Challenge

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