

**Broadening the 'World Crops' Discourse:
Exploring Ecological and Cultural Gaps in 'World Crops' Research
for the Greater Toronto Area**

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Abstract

The goal of this paper is to broaden the current ‘world crops’ discourse by exploring two gaps within existing research. In this context, world crops refer to crops that have not historically been a major part of Ontario’s mainstream vegetable production, thus they are crops that are relatively new to local farms. Also, these crops generally hold strong regional and cultural significance for recent newcomers to Canada, specifically in relation to their traditional diets. The paper begins by reviewing the existing body of world crops research pertaining to production, supply-chain, and marketing data for Ontario, especially for the Greater Toronto Area. From this, it was observed that one of the major gaps was around organic world crops production. Thus, this was one of the gaps addressed in this paper through primary and secondary research. The primary research involved interviews with major actors in the Toronto food movement as well as with organic researchers. Significant insights were gained into the productive potential for organic eggplant and okra production, while the complex challenges that face small-scale organic farmers, including new farmers and farmers of colour (especially newcomer and immigrant farmers) were explored. In addition to the knowledge gap around organic world crops production, an in-depth look into the factors that influence different immigrant communities’ interest in local and organic world crops, and their engagement with the local food movement, were also deemed insufficient. Thus, a study of the Chinese community in Toronto was conducted to explore political, economical, social and cultural factors that may affect their interest in local and organic world crops, as well as engagement with the local food movement. This exploration began by looking at the characteristics of the alternative food movement in Hong Kong and China in order to identify possible linkages to the Chinese diaspora’s relation to food and farming here in Canada. This exploration concluded with interviews with food movement actors in Toronto and Vancouver who shared the opportunities and barriers they have faced in attempting to engage Chinese-Canadian communities in local food movement activities. Finally, the empirical findings were analyzed through the following theoretical frameworks: elements of Marx’s theories on capitalism and their relation to food regime theory; “agrarian question” related discussions around the role of small-scale, non-capitalist, and family farms within capitalism’s development; and class-based and anti-racism analyses from a food justice perspective. On an empirical level, each section of the paper concludes with suggestions for future research and action. On a theoretical level, this paper concludes that determining the feasibility of expanded local world crops production requires the examination of factors both *within and outside of* the supply chain. Factors outside of the supply chain

that warrant critical attention are issues related to food and social justice, such as the political, economical, social, and cultural factors that determine the availability of culturally appropriate foods and an individual or a community's ability to access these foods. In closing, the paper concludes that access to more culturally appropriate foods can only come about with access to a more culturally appropriate food movement.

Foreword

The goal of this major paper is to explore two knowledge gaps within the current body of world crops research pertaining to local production in Ontario. These two gaps relate to local and organic world crops production, as well as an understanding of the political, social, and cultural factors that impact an individual or a community's engagement with the local food movement. For this paper, the community I focused on was the Chinese-Canadian community in Toronto, particularly first generation immigrants predominately from Hong Kong during the late 1980s and early 1990s. By exploring these two gaps, I hoped to gain a deeper and more holistic understanding of the factors that affect the feasibility of expanding local world crops production in Ontario, specifically around the Greater Toronto Area. Prior to address these two areas, a broad exploration of existing world crops data was carried out in order to identify these two gaps.

Within my broader learning goals in the Master of Environmental Studies (MES) program, my plan of study was to focus on food systems studies and to do so with an interdisciplinary approach. Prior to the MES program, I had been a full time organic vegetable farmer based in Toronto, with a focus on Chinese vegetables. Also, I had been an active member of the local food movement, being involved in multiple urban agriculture projects and studies through various roles and in varying capacities. However, I had no formal studies related to food systems at a broad theoretical or historical level. Thus, my goal in MES was to develop an introductory and broad theoretical knowledge base related to all aspects of food system studies to complement my practical knowledge and experience and to inform future practical work. Thus, this paper, similar to my plan of study, aimed to bridge the empirical and the theoretical. Accordingly, this paper began with a comprehensive exploration of both existing and new empirical data and it concluded by vetting these empirical findings against broad theoretical frameworks. This was to enable a more informed assessment of the significance and relevance of the empirical findings in relation to the broader food movement and beyond.

In closing, I would like to thank my family, friends, colleagues, and professors who have supported me continuously throughout this learning endeavor, and I thank you for your knowledge and critique, your guidance and wisdom, and your patience. A special thanks to my family and farming colleagues for being the inspiration for this research, and a special thanks to Dr. Rod MacRae and Dr. Martha Stiegman for all of your guidance.

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1.0 Introduction

The goal of this paper is to explore the topic of local ‘world crops’ or ‘ethno-cultural’ vegetable production and consumption in the Greater Toronto Area (GTA). Currently, the existing body of research is mostly dominated by conventional production data, and traditional economics and marketing analyses.

However, there is less emphasis on sustainable agriculture methods, as well as the social, cultural and political dimensions of the world crops topic. Thus, this paper will focus on these existing research gaps, bring forward some of the issues that have been overlooked, and synthesize discussions that are commonly siloed. Additionally, by analyzing the topic of world crops through a more holistic lens that merges production, economics, social, cultural and political analyses, this paper aims to reframe the conversation about access to culturally appropriate foods from a production/economics-centric lens to one that is centered around food security, food sovereignty and food justice.

Before I describe my specific research questions, I will contextualize my research questions by providing a brief timeline of world crops research up until this point in time. The topic of ‘world crops’ (which will be defined in the upcoming section) is both a historical and burgeoning area of research within Ontario’s agricultural history. Initial interest was triggered in the early 1980’s when Ontario’s agricultural industry began looking for new crop alternatives as the tobacco industry declined significantly due to decreasing market demand and historical weather and disease related crop failures (“Tobacco in Elgin – Decline”, n.d.). Since then, particularly between the mid-80’s to mid-90’s, explorations into the production of sub-tropical and non-traditional crops began in Ontario. Agriculture and Agri-Food Canada published one of the first reports that attempted to quantify ethnic¹ food markets across Canada in 1994 (Kelleher et al., 2009) and research has evolved steadily ever since. See appendix 1 for a timeline of major research projects from 1994 to the present.

Throughout this timeline of world crops research, research initiatives have covered a wide range of topics. Some studies have focused on identifying crop types and varieties potentially suitable for Ontario, while others have focused on understanding Ontario’s existing supply chains for imported ethno-cultural

¹ While I think the term “ethnic” is problematic in the way that it can homogenize all communities of colour into one over-generalize category, I have chosen to use this term in this paper for ease of readership. By this, I am meaning that I will be referring to multiple communities of colour frequently throughout this paper, at times collectively and at times individually; thus, utilizing the term “ethnic” in this case is to reduce wordiness when I not referring to one specific community of colour, but rather, making the distinction that I am not referring to ‘whites’, ‘Caucasians’, or communities of European descent.

vegetables. Some studies have been focused on the consumption end of the supply chain, characterizing the dietary traditions, taste preferences, and shopping habits of individual ethnic and cultural groups. Additionally, the range of research topics can be seen reflected in the range of researching bodies. Over time, the range of organizations interested in world crops has expanded from long-standing dominant institutions like the University of Guelph and Agri-food Canada to non-governmental organizations (NGOs), non-profits, grassroots community groups, academics and policy councils such as the Toronto Food Policy Council, and government departments like Toronto Public Health.

But despite the range of interested actors, formal studies, and community projects, world crops as a research topic still occupies a relatively miniscule niche within the dominant agricultural research agenda at the national and regional level. Furthermore, within the already small arena of world crops research, the focus on small-scale, diversified and ecological or sustainable production, and its related supply chain and consumer demand, is an even smaller niche where data is sparse or in some cases, non-existent. For the most part, sourcing data for organic world crops production or producers is extremely challenging and there is little existing data to be found. Beyond on-farm production, there is almost no data about the nature of the supply chains used by existing ecological world crops producers or their marketing strategies. Finally, while current market research has yielded general consumer profiles for individual ethnic and cultural groups, this data is limited to broad statistics around income, percentage of household income spent on food, general characteristics about each groups' taste preferences, and their degree of interest in purchasing local produce. While all of this data is extremely important for studying the economic feasibility of local world crops production, deeper and more nuanced investigations may also be valuable. For example, rather than looking at "Chinese" or "South Asians" as single homogenous groups for marketing purposes, social or cultural investigations could delve deeper into the distinctions and uniqueness among different regional subgroups within these broad ethnic categories. More nuanced investigations could dig deeper into the specific interests, concerns and barriers to culturally appropriate food for each subgroup. Finally, distinct relationships to food and farming, and how this may affect the engagement of each group with local food and the local food movement, could be examined. These research gaps are significant, and have informed my specific research questions, including the primary research that I conducted for this paper. In the next section, I will explain my specific research questions and my research methodology.

2.0 Research Questions

The original intent of this paper was to investigate the feasibility of scaling up ecological or sustainable world crops production in the Greater Toronto Area. However, as mentioned, it was discovered during the initial phase of my research that there was little to no preliminary data to inform my original question. For example, when I approached one of the only organic world crops production studies to date, in search for farmer contacts, the demographic of current world crop producers was unknown to the research team. Similarly, during the recruitment process for a world crops marketing research project currently underway in Toronto, the regional search for participant farmers yielded only a handful of growers, and there was no existing database of producers.

Thus, it was determined that a feasibility study for ecological world crops would be premature, and that perhaps it would be more useful to gather some of this missing preliminary data. Thus, my research questions were to serve as a first step in exploring ecological world crops production in and around the GTA, and to identify key actors and issues. The findings will then be used to address *some* of the missing pieces of a larger picture regarding world crops and the access to culturally appropriate foods, which is the broader goal of this paper.

As mentioned before, almost all of the existing data and literature on world crops focus on conventional production, their related supply chains, and the interest and demand by consumers for local, but not organic, world crops. The following research questions focus on the ecological agriculture sector to explore what exists in terms of world crops, production, distribution and marketing, and existing research regarding these areas. Furthermore, these questions aim to build more understanding about the nature of world crops research at each stage of the supply chain, including opportunities and challenges. The following are some broad exploratory research questions pertaining to ecological world crops. (See appendix 2 for the specific questions presented to individual interviewees/participants during the research process):

- What agronomical studies exist for organic world crops production in Ontario? If any exist, how do they answer the questions, who, what, where, how and why?
- Are there any commercial, ecological world crop growers in and around the GTA, serving the GTA market? If so: who are they, where are they growing, how are they growing, what are they

growing, what is their scale of production, how and where are they marketing, who are their customers, what are their successes and challenges, their opportunities and barriers?

- For existing growers, what is their level of awareness and engagement with existing world crops research, projects, and initiatives in the GTA or in SW Ontario?

In addition to these questions around world crops production, marketing and supply chains, there will also be a set of questions exploring the demand for ecological world crops by the GTA's Chinese-Canadian community. The rationale for including a more in-depth community profile as a part of this paper is in response to the earlier critique that what is missing are deeper analyses for any one particular ethnic community. This means a more in-depth understanding of the social, cultural, and political economic factors that shape a community's relationship to food and their value system – all of which affect their 'consumer shopping habits', or their interaction with local food systems. Thus, this section focusing on the Chinese community marks an attempt to delve into the particularities of one ethnic community, within which there exists further diversity. One area of exploration will look at the dynamics of alternative food networks in China and Hong Kong, and how this may affect the attitudes of the Chinese diaspora in Toronto towards the local food movement.

To summarize my research questions, the goal of my primary research is to begin generating data that is currently missing from the mainstream world crops research work in SW Ontario, and to contribute new findings to the existing world crops conversation. By creating a more global picture of key issues, it is the hope that a more integrated analysis is possible. Hopefully, these insights will help determine what actions need to be taken in addition to the current initiatives that mainly focus on market-based solutions.

3.0 Methodology

My research methodology mainly consisted of document analysis and semi-structured interviews. The document analysis reviewed secondary data including world crops research reports and articles, popular media articles, and a range of technical and academic articles, both empirical and theoretical in nature. The semi-structured interviews gathered primary data from key actors involved in current world crops work and research within SW Ontario, especially in the GTA. Also, key food movement actors in Vancouver and Hong Kong were interviewed. These actors include farmers, academic researchers, non-profit project leaders, community service workers, and food movement activists.

Regarding the participant selection and interview process, key actors were identified from my review of past and present world crops projects, studies, and reports. My own involvement with world crops work prior to this research, as both a farmer and a worker in food movement projects, provided me with some relevant contacts. After the initial selection of several key actors, further research and networking helped to identify additional contacts. For the semi-structured interviews, each participant was sent a list of individualized questions electronically. Then, direct phone interviews or follow-up phone conversations took place after the participant reviewed or completed my questionnaire. My exact interview questions for each participant can be found in appendix 2.

Finally, it is important to mention my position within the current field of world crops research at this time. Beyond my position as an academic researcher for this paper, I have been an entrenched member of the 'world crops' community and a participant in several Toronto-based world crops projects for approximately five years prior to this research. I myself, am a small-scale, ecological world crops farmer based in Toronto, and I have been staff and researcher for various world crops related projects. This includes being involved in urban farm production, participating in consultation processes, and presenting at workshops and conferences. During the research period for this paper, I held a position as a researcher for the 'Feeding Diversity' project, and I also held a coordinator position serving a network of world crops learning gardens throughout the GTA. Finally, I identify as a member of the Chinese-Canadian immigrant community, being an immigrant to Toronto myself, along with my family. Thus, I am also a member of the 'ethno-cultural eaters' or 'consumers' community that is the subject of existing research.

Given the intersectional nature of my position within current world crops research (within and beyond the scope of this paper), I acknowledge that the observations, interpretations of findings, and analyses that are presented in this paper are shaped and influenced by my position as 'a complete participant', 'a participant as observer', and 'an observer as participant' (Kawulich, 2005). Thus, while maximum objectivity is the goal, I acknowledge that my mixed positionality inevitably leads to a certain degree of subjectivity in my analyses. ,During the primary research process, my role as a researcher was explicitly communicated to all interview participants. As for any findings, insights, and observations that were learned indirectly through my involvement as a 'complete participant' or a 'participant as observer', this context will be clearly stated in my presentation of such 'findings'. Additionally, any information that is anecdotal in its nature will be explicitly identified as such.

4.0 Background

This section of the paper will provide a brief overview of some of the key points and findings from the dominant body of existing world crops research thus far. First, the term ‘world crops’ and what it is referencing in the context of this paper will be clarified. Then, reasons why world crops production is particularly relevant and important to SW Ontario, and especially the GTA, will be discussed. Finally, from the historical timeline of world crops research and developments to date, key actors and organizations and the highlights of their work and findings will be presented. All of this serves to provide a context for more recent data that will be presented in later sections, including the primary data collected for this paper. By describing the existing mainstream data that most new research is building upon, and by illustrating some of this data’s gaps and shortcomings, it is the hope that the relevance of the more recent data will be illustrated.

4.0.1 Definition of ‘World Crops’

Outside the context of formal research, the term ‘world crops’ is almost too broad to have much significance, given the migration and evolution of plants (from their native places of origin to their adaption to new regions) on a broad global scale through means that are mediated by humans as well as those that are not. Historically, the scope and definition of ‘world crops’ is almost just as broad in the context of ‘world crops’ or ‘non-traditional crops’ research by government agricultural departments. For example, on the Ontario Ministry of Agriculture, Food, and Rural Affairs’ (OMAFRA) specialty crops website (“Specialty Cropportunitites - Alphabetical Crop List,” n.d.), approximately 150 vegetables, fruits and herbs are listed along with production and marketing information for each one.

As earlier described, a more focused stream of ‘world crops’ research began to develop between the mid-80’s and mid-90’s and has been gaining momentum ever since. In these developments, it appears there are two main streams of research for world crops. One stream is headed by OMAFRA, whose website, ‘Specialty Cropportunities’ illustrates their continuing work providing production and marketing information, and extension services for up to 150 crops. In the other stream of research, the Vineland Innovation and Research Centre, a non-profit horticultural research station based in Ontario’s Niagara region, has served as the leading source of information for the most current production and marketing data. Most often, among current world crops news and discussion, be it in popular media, in

organizational and academic reports, or at food and farming conferences, it is Vineland's work that is most commonly referenced. Since approximately 2007 until 2009, Vineland has been researching staple crops relevant to Chinese, South Asian, Southeast Asian, and African-Caribbean communities. These crops have included Chinese and Indian eggplants, Chinese and Thai hot chili peppers, Chinese green onions, Chinese fuzzy melons, bitter melons, okra, Asian and African-Caribbean amaranth, yard long beans, Indian red carrots, and bottle gourds. However, around the period between 2013 to 2014, they narrowed their research focus to predominantly 3 crops: okra, Chinese and Indian eggplants, and Chinese and Thai hot peppers. This continues to be the case currently.

In addition to Vineland, other grassroots, non-profit organizations, community groups, and governmental departments have also focused on world crops with increasing interest since 2007, and their research has also focused on the same ethnic communities and crops mentioned above. Thus for this paper, my research aims to dialogue with and expand on the body of literature that has been developing since 2007. In this paper, when I refer to world crops and their associated markets, communities and issues, I am also focusing on the four communities mentioned and their staple crops, including Vineland's current 3 focus crops.

Finally, in a recent report by the *Feeding Diversity* project (2013), the 'world crops' definition that is provided is also in line with how this paper interprets and conceptualizes 'world crops' in its discussions. This definition is as follows: 'world crops' are crops "that are relatively *new* to local farms and carry with them a regional significance to the more recent wave of newcomer Canadians", and they are crops that are "common in both newcomer and Canadian diets / cuisines" (5). Lastly, among existing literature, the term 'world crops' is often interchanged with the terms 'ethno-cultural', 'culturally appropriate', 'culturally specific', and 'non-traditional' vegetables. Thus in this paper, these terms will also be used interchangeably with one another.

4.0.2 The Case For World Crops in Ontario (1): Shifting Demographics

One of the most significant reasons to explore world crops production possibilities in Ontario is because of the large proportion of immigrants or ethnic/visible minorities who reside in Ontario and especially in Toronto. While there is also a very significant percentage of newcomers who settle in other provinces and cities across Canada, 60% of newcomers settle in Ontario, 50% of whom settle in Toronto (Perkins & Walker, 2011). In Toronto, it is estimated that immigrants account for approximately *half* of its

population ((Statistics Canada 2007, n.d.) in (Hadrer, Benner, Bloom, & Young, 2010,6)). And to further illustrate settlement patterns, high concentrations of visible minorities can be identified in specific municipalities or regions of Toronto. For example, 72% of Markham is comprised of visible minorities versus 53% in Mississauga.

In recent years, immigration has continuously increased over time, and this trend is only expected to continue (Toronto Food Policy Council, Toronto Public Health, & Vineland Research and Innovation Centre, 2013, 5)(See appendix 3). By 2020, 2.2 million new Canadians are expected (Praskey, 2014), and by 2030, immigrants are expected to account for two-thirds of Canada's population growth (Sharifi & Zvalo, 2016). For Toronto specifically, visible minorities are expected to account for 63% of its population (Toronto Food Policy Council et al., 2013, 5). Within these broad statistics, further research has also identified which ethnic groups will make up the majority of new immigrants in coming years. Between 2001 and 2006, Chinese and South Asians were the fastest growing newcomer communities (Hadrer et al., 2010,6). Moving forward, by 2031, Chinese, South Asians, and Filipinos are expected to comprise the majority of the new immigrants (Praskey, 2014).

Among existing market research, the significance of these immigration projections is that ethno-cultural vegetables sales already make up a significant portion of produce sales in the Greater Toronto Area. This is due to the fact that ethnic and especially new immigrant groups have been shown to spend a much higher percentage of their average household income on vegetables, compared to their Canadian counterparts. For example, Chinese immigrants spend an average of 39% of their household income on vegetables ((Adekunle, Filson, & Sethuratnam, 2013) in (Aitken, 2014, 2)) compared to 7% for the average Canadian consumer ((Adekunle et al., 2013) in (Aitken, 2014, 2)). Furthermore, parallel to immigration statistics, ethno-cultural vegetables sales have also been on the rise and this increase is expected to continue. Between 2011 and 2014, the sale of Chinese and Indian eggplants in Ontario grew by 32%, while okra increased by 45% (Sharifi & Zvalo, 2016). Given this trajectory, for a crop like okra, its current consumption will likely increase threefold by 2030 (Sharifi & Zvalo, 2016).

Given these statistics, it is no surprise that visible minorities as a burgeoning consumer market are attracting the attentions of the agricultural and the food retail world. The agricultural sector views these statistics as representative of new and diversifying opportunities for domestic farmers and their incomes, while retailers eye the untapped sales opportunities within the ethnic market. For example, around 2011, Canada's largest food distributor, Loblaw's Companies Limited, purchased T&T, a British Columbia based

Chinese grocer. In doing so, its president acknowledged the opportunities to capitalize on the ethnic market by stating, “This for me is a huge opportunity. We have to be the No.1 player in ethnic. Everything we’re doing is very much focused on this particular opportunity” (Perkins & Walker, 2011, 6). While all of this is good and well, it is also important to consider the food needs of the immigrant population, from a health and cultural perspective, and according to the principles of food security, food sovereignty and food justice. The importance of world crops as a general topic of discussion seems clear, based on its relevance to such a significant percentage of Canada’s population, one that may transform from being a minority to a majority in the near future.

4.0.3 The Case For World Crops in Ontario (2): Soil and Climatic Conditions

In addition to the immigration statistics that make a strong social case for boosting regional world crops production in Ontario, there are also environmental and agronomic factors of significant relevance. Fortunately, in the case of Ontario, much of the soil and climatic conditions closest to the Greater Toronto Area are coincidentally some of the most suitable for vegetable production in Canada. In Wally Seccombe’s *A Home-Grown Strategy for Ontario Agriculture* (2007), Seccombe highlights Southwestern Ontario’s most valuable and unique ecological assets:

- 52% of Canada’s best farmland is situated in Ontario (8)
- Of this 52%, only 0.5% of this premium farmland is considered ‘Class 1 soil’ and more than 50% of this ‘Class 1 soil’ is located in Ontario (21). The significance of ‘Class 1 soil’ is that it has no significant limitations for use with crops (8).
- Approximately 1/3 of the ‘Class 1’ farmland in Ontario can be seen from the CN tower (“Why Save Farmland? Ontario Farmland: A Unique, Strategic Resource,” n.d.).
- Ontario is the only province in Canada with an AgroClimatic Resource Index (ACRI) value of three or higher (21). This value evaluates the degree of limitations on food growing potential based on a region’s frost-free period, growing period temperature range, and moisture limitations. “Canadian farmland with ACRI values of 2.0 or higher are considered critical agricultural lands” (21).

Finally, in addition to Ontario’s ideal soil and climatic conditions, the province already has an established vegetable production industry that accounts for 44% of Canada’s total fruit and vegetable production, with Quebec as the only other major domestic competitor, with its production at 26% (Perkins & Walker, 2011, 8). Furthermore, there is already a history of world crops production in Ontario, with the

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production of various Chinese greens in the Holland Marsh area since the early 2000s (Toronto Food Policy Council et al., 2013, 6). Interestingly, much of this production is exported to New York State where growers have been able to receive higher prices for their crops (Toronto Food Policy Council et al., 2013, 6).

4.0.4 The Case For World Crops in Ontario (3): Diversifying Local Farm Income

Despite the export of Ontario's Chinese greens to the Northeastern US market, most existing world crops studies still mention the possibility of boosting local farmers' incomes through domestic world crops sales as one reason why world crops production warrants continuous exploration. Based on the calculation of current world crops sales in Ontario, Jim Brandle, the CEO of Vineland Research and Innovation Centre, estimates that if Ontario can "supply even 10% of the ethnic vegetable and fruit market, it could be worth about \$80 million for the province's farmers" (Bilial, 2011), in (Perkins & Walker, 2011, 7). In the upcoming sections, the opportunities and challenges that are faced by local farmers who want to capture a portion of these market sales will be discussed.

In closing, based on the combination of social, agronomic, environmental/climatic, and economic contexts described, there are multiple justifications for exploring the feasibility and value of world crops production in Ontario. In the next section, I will describe the major actors and organizations that have been instrumental in developing the existing mainstream body of literature addressing world crops and its many dimensions. After that, the key findings from existing research will be presented and discussed.

4.0.5 Key Actors and Organizations in World Crops Research

Given the many facets of the world crops discussion, a similarly diverse range of actors and organizations have become involved with world crops research and projects over the years. Some of the main categories and key players are as follows (see appendix 4 for a detailed descriptions of some of the groups and their involvement thus far):

- Government Departments and Institutions:
Agri-food Canada, the Ontario Ministry of Agriculture, Food, and Rural Affairs (OMAFRA), Toronto Public Health Department

- Academic and Non-Profit Institutions Conducting Scientific Horticultural and Agronomical Research:

University of Guelph, Trent University, Dalhousie University, the Muck Crop Research Station in the Holland Marsh area north of Toronto, and the Vineland Research and Innovation Centre

- Grassroots, Community-based, Non-Profit Organizations:

FarmStart, the Greenbelt Foundation, the Toronto Food Policy Council, The STOP Community Food Centre, and the World Crops Project

Amongst the work of all these different groups, a foundation of technical/agronomic, economic, and social insights have been gained, including the opportunities, successes, barriers, and challenges in each area. The following section will briefly summarize the key findings in each of these areas. These findings comprise the main body of research for world crops thus far, and they set the stage for the later sections of this paper that will explore some of the gaps and attempt to examine this issue through various theoretical frameworks.

5.0 Existing World Crops Research

In reviewing the existing body of work, information will be presented in sequence from the production to the consumption stage of the supply chain. Since this paper is not solely focused on world crops supply chains or marketing, this section will be a brief overview covering the most relevant points that pertain to the goal of addressing the knowledge gaps within existing research. That said, it is important to first understand the nature of Ontario's existing world crops supply chains in order to understand how to improve them. Lastly, I will mention that it has been consistently repeated across multiple studies that information about small-scale organic/ecological growers and production is relatively lacking. Thus, one can assume that most of the discussion in this section is referring to producers and production using conventional growing methods, unless otherwise stated. While some information about ecological growers will also be included here, most of this information will be presented in later sections that focus specifically on the organic/ecological sector.

5.0.1 Ontario World Crops Producers

According to Aitkens (2014) and Nawaratne (2012), current commercial producers of Ontario world crops can be identified by three main categories: traditional, professional, and local alternative.

Traditional growers generally have the largest acreage of land in total vegetable production, but only a small percentage of their operations are dedicated to world crops often as a secondary or experimental crop. Meanwhile their other crops are vegetables that are more common to Ontario production (Aitken, 2014, p.48). Their world crops knowledge and experience may vary, ranging from new and experimental growers to those who have been attempting commercial production for several years. However, the level of experience within this category of growers is generally lower than those in the professional category. As a result, the general quality of world crops coming from this group is subpar to the quality standards demanded by retailers (Aitken, 2014). The production methods amongst traditional growers also tend to be conventional, involving synthetic fertilizers and pesticides. For these growers, world crops are appealing as a potential new revenue stream. In some cases, this new revenue stream is appealing as a potential 'exit' from their current supplier-buyer relations, some of which have been described as constraining and restrictive (Kranenberg, 2016). In terms of their typical relations to buyers, traditional growers mainly sell to chain retailers and wholesalers, and these interactions can take the form of

contract growing for a specific retailer, working with intermediary wholesalers, or selling wholesale through the Ontario Food Terminal farmers' market (Aitken, 2014, p.48). Among existing literature and within the popular and dominant world crops discourse, many of the production and marketing challenges identified by leading research institutions such as Vineland appear to be the most relevant to this group of growers.

The second category of commercial world crops producers is 'professional growers'. These growers tend to be medium to large scale conventional growers who specialize in world crops production for the majority of their operations. This category is unique in that the majority of its demographic is comprised of Chinese farmers, with farms and crops such as Asian greens as well as some east and south Asian root crops, such as Indian Red Carrots (Aitken, 2014). Many of these growers operate large farms in the Holland Marsh and Bradford area and have been doing so for many years (in some cases, decades). Outside of the Chinese community and these specific crops, it is unclear how many professional growers of other backgrounds and other world crops exist, but south Asian farmers and south Asian crops are also prevalent within this category. This category of growers face the least challenges in production since they have the most experience producing their particular repertoire of local world crops. This is especially true for Chinese farmers and crops, some of whom and which have been established in Ontario for 40 to 50 years (Nawaratne, 2012). As a result, these growers' products are also found to be competitive in meeting the quality standards set by both retailers and international competitors, especially when it comes to freshness (Aitken, 2014). Additionally, some of these farms also own operations in Mexico in order to sustain year-round supply (Nawaratne, 2012). Finally, in terms of marketing and their supply and value chain relations, many of these professional growers have well established markets and supplier-buyer relations, thus many are not particularly interested to further diversify their crop production (Aitken, 2014). Common sales channels for professional growers include independent ethnic (largely Chinese) supermarkets, the Ontario Food Terminal farmers' market, and large chain (non-ethnic specific) supermarkets (Nawaratne, 2012). It has also been noted that long term personal and family relations, and close cultural ties have attributed to the close-knit nature of business relations in this category, especially in the Chinese community (Aitken, 2014).

The final category of growers is who Aitkens (2014) terms the "local alternative" producers. Generally, these growers are organic, diversified (they grow a wide variety of vegetables in small volumes) and small-scale in their production, cultivating 10 acres or less (Aitken, 2014). While all farmers discussed here are 'local' to Ontario, 'local' for this category refers more specifically to the *highly* localized nature of

these farms' sales channels. These farmers predominantly utilize direct marketing strategies to sell directly to individual, household customers at farmers' markets and through subscription models such as CSAs (community supported agriculture). Thus, the distance between their area of production and their area of sales is often no more than 200 km, given that farmers who sell via this method are often doing the transportation and delivery work as well, thus limiting their capability to transport their products over long distances. Within this category, there is a majority demographic of new farmers, newcomer and immigrant farmers, and urban farmers. These categories are not exclusive of one another and it is common for a 'local alternative' farmer to fit one or more of these categories. The strength of this group is that they are often the most familiar with, and the most open, to the East, South, and Southeast Asian, as well as the African-Caribbean crops that are the interests of current research. This familiarity and openness can be due to their own ethnic backgrounds, exposure from their proximity to a city with a diverse food culture, or their own farming experiences prior to immigration (Aitken, 2014). Thus, it is possible for this group of growers to produce high quality local world crops, as observed by Aitkens in the case of eggplants and okra supplied by local alternative growers at the Ontario Food Terminal (2014, 169-170). However, broadly speaking, these growers also face significant challenges that can hinder their capacity to expand production and meet the quality standards needed to be competitive against imports. Some of the most significant challenges include access to land, start up capital, knowledge about production and equipment needs specific to Ontario and different from their production methods and tools abroad, language and cultural barriers, labour, lack of familiarity with local support services for the agricultural sector, institutional trust, linking to local markets, and disconnection to the local agricultural community (Aitken, 2014; Filson, Adekunle, Sethuratnam, Bloom, & Young, 2010; Hadrer et al., 2010; Nawaratne, 2012; Toronto Food Policy Council et al., 2013). All of these challenges significantly impact the ability of these farms to scale up, and can be detrimental to their economic livelihood. However, it was also noted by Nawaratne (2012, p.68) that other than economical reasons, many of these farmers also grow for personal, cultural, social/community, spiritual and health reasons. The dualistic character of this group, being one that possesses a strong potential to become the next generation of 'professional' growers (Aitken, 2014), while also being a group that faces significant resource challenges, will be further discussed in later sections of this paper.

5.0.2 Current World Crops Production in Ontario

As described earlier, some of the crops that can be grown in Ontario were listed, as identified by research carried out by the Vineland Research and Innovation Centre since 2008 (Schaer & Vineland Research and A. Cheng, 2016.

Innovation Centre, 2016). These crops are: Chinese and Indian eggplants, Chinese and Thai hot chili peppers, Chinese green onions, Chinese fuzzy melons, bitter melons, okra, Asian and African-Caribbean amaranth, yard long beans, Indian red carrots, and bottle gourds. Additionally, it was noted that since the period of approximately 2013-2014, Vineland's research focus has narrowed and they are currently just focused on three crops: okra, Chinese and Indian eggplants, and Chinese and Thai hot peppers. This selection is based on consumer demand from Canada's three largest ethnic groups: the Chinese, South-Asian and Afro-Caribbean communities (Nawaratne, 2012), as well as sales tracking from recent years showing consistently increasing consumption of crops such as eggplants and okra (Sharifi & Zvalo, 2016). Thus it is understandable that much of the current research focus is targeted towards these crops.

Regarding the agronomic data for Vineland's crop selection, 'growing guides' for up to eight of the crops listed above were previously developed and made publicly available for growers on Vineland's website. See appendix 5 for a growing guide example. These sheets included recommendations for specific varieties, planting times and spacing, conventional crop management strategies for soil fertility, weeds and pests control, harvesting information, and storage and handling guidelines. Since Vineland reduced their crop focus, information for mostly eggplants, okra, and hot peppers is now available.

While this data is extremely valuable, especially for conventional producers and for organic producers who can glean some transferable information such as variety recommendation, it is also important to recognize that aside from Vineland's crop list, there are many crops outside of this list that have been and are being explored in Ontario, as mentioned earlier in this section. Although it is difficult to conclusively identify a precise crop list for what is being commercially grown, by whom, in what quantities and at what scale, there is plenty of evidence to show that agronomically speaking, many non-traditional crops can grow here in Ontario. Additional evidence of this last point would include the established repertoire of Asian greens that have and continue to be grown here, the list of crops and growing guidelines provided on OMAFRA's specialty crops webpage ("Specialty Cropportunitites - Alphabetical Crop List," n.d.), and the cornucopia of non-traditional vegetables that grow in backyards and community gardens throughout Toronto's diverse neighbourhoods (Baker, 2004). Some studies have identified that approximately 38 different types of ethno-cultural vegetables can be found growing on small farms just outside of the GTA for the local market ((Gunst, Jurjens, & McDowell, 2010) in (Nawaratne, 2012)).

5.0.3 Key Challenges for Ontario Producers and Production

In recent years, there is a dominant discourse and body of research that exists within food, farming, and agriculture industry related literature, as well as at food and farming conferences and events. This discourse has mostly centered on Vineland's research findings. These findings mainly focus on three major crops, the production challenges faced by large scale, traditional growers trying to adopt these 'new' crops, and their challenges in making market connections and meeting the needs of retail and wholesale buyers. Thus, this section will briefly summarize the key challenges that affect this group of growers.

- Seed sourcing – growers can face regulations and legislation that block seed importation since some seeds for world crops may be not covered under current policies that have approved other mainstream crops ((Kelleher, Lam, Skowronski, & Vaidyanathan, 2008) in (Nawaratne, 2012, 16).
- Lack of registered pesticides – similar to the seeds dilemma, lack of knowledge about relevant pesticides and an absence of registered pesticides required by conventional producers deter them from adopting a new crop in a process that may already be costly and risky (Aitken, 2014; Gunst et al., 2010; Kelleher et al., 2008; Nawaratne, 2012).
- Lack of familiarity and knowledge about world crops and their associated markets
- Insufficient commitment and dedication to the production and marketing of these crops, since world crops are often a secondary or experimental product for traditional farmers (Aitken, 2014). This can translate to insufficient investments of time and resources, which consequently diminishes the quantity and quality of yields. This can mean significant knowledge gaps in production, harvesting, and storage best practices, or a lack of investment in the specific and necessary equipment to implement best practices for production, harvesting, packaging, storage and handling (Aitken, 2014; Nawaratne, 2012; Perkins & Walker, 2011).
- Products are of inferior quality compared to imports or those supplied by professional or local alternative growers, or products do not meet precise size, varietal, quality, packaging requirements set by buyers (Aitken, 2014). More specifically, Aitkens found that most imports showed physical signs of having gone through superior post-harvest handling procedures (2014).
- Low motivation to continue due to poor yields or low sales

- Insufficient demand for local produce *specifically*, thus growers have to compete primarily on price. As a result, they are often out-competed by imports due to lower labour costs (Aitken, 2014; Hadrer et al., 2010; Perkins & Walker, 2011)
- Many world crops have very time- and weather-sensitive harvest windows, and they require labour intensive harvesting techniques. Affording labour for these crops can be challenging.
- The conundrum of farmers being reluctant to invest in resources for new crops unless sufficient market demand is guaranteed, and vice versa; buyers being reluctant to contract a grower unless they can ensure a reliable and consistent supply. Some buyers have even explicitly stated that they would be more willing to work with a producer if s/he had a production ‘program’ in place for a specific world crop (Aitken, 2014).
- Inability to provide year-round supply. However, in recent times, there is a portion of Vineland’s research that is focused on greenhouse production in attempts to alleviate this issue (Schaer & Vineland Research and Innovation Centre, 2016).

As illustrated, there are many challenges that face traditional producers and there exists an aspiration to encourage more local farmers to adopt new crops. Furthermore, one can see that some of these challenges would be common to any local producer (of world crops and/or traditional crops) attempting to compete against imports. Furthermore, these challenges illustrate that in order to build the necessary market demand for local produce, whether it is conventional or organic, more education and promotion about the value and benefits of local produce is key, especially if local produce cannot compete on price alone. To this last point, the need to leverage the beneficial qualities of ‘local’ as a marketing strategy inevitably relates to food movement discourses about local food, since the notion of rebuilding local food systems is one of the movement’s main tenets. However, when we closely examine the relationship between the local food movement and the localization of world crops later in this paper, it will be illustrated that increasing world crops production is that issue that involves not only technical and economic challenges, but complex social challenges as well.

5.0.4 Ontario’s Current Supply of Imported World Crops

To reiterate an earlier caution against homogenizing the study of world crops, the same principle applies to the study of supply or value chains for each individual world crop, where the most meaningful analyses will result from an in-depth study of an individual crop, the particularities of its production process and its subsequent distribution, marketing, and consumption. But since this paper is not strictly about supply

A. Cheng, 2016.

chain discussions, the scope of this section will only highlight some key findings. Within the current and dominant world crops discourse, the vision most often expressed is for more local farmers to grow world crops and supply the local market, and for existing world crops farmers to scale up production and expand their markets. Thus, the findings presented are meant to provide a general overview of the current supply and value chains, so that the opportunities and barriers for new entrants and existing growers/suppliers can be understood.

According to Aitkens (2014), Ontario currently has access to year-round supplies of world crops imports, which make up most of Ontario's world crops supply. The slight exception to this is the existence of a mature local production and distribution network for certain Chinese and south Asian crops, especially Asian greens. However, as noted at the start of this paper, sadly a large portion of Ontario's Asian greens is also exported to the United States. Ontario's largest supplier is the United States, followed by Mexico and the Dominican Republic (Aitken, 2014; Perkins & Walker, 2011). Domestically, British Columbia and Quebec are the other major producers, but Quebec is considered Ontario's major domestic competitor (Perkins & Walker, 2011). Despite the current supply of world crops, it is deemed that Ontario's current demand is under-supplied and future demand is only expected to grow (Aitken, 2014; Perkins & Walker, 2011; Sharifi & Zvalo, 2016; Toronto Food Policy Council et al., 2013).

Comparing imports versus local produce, imports have some advantages. These advantages include: year-round availability; extensive experience and dedication to these crops, which results in consistent quality that meets retailer and consumer standards; and cheap prices that are largely the result of cheap labour (Aitken, 2014; Perkins & Walker, 2011). Even when Ontario is able to produce local versions of world crops during its growing season, imports present fierce competition as their prices are lowered during our growing season to heighten competition (Aitken, 2014). However, there are a few areas where local world crops have demonstrated some advantages. For Ontario producers, one of their biggest *potential* advantages is superior freshness because of their proximity to local markets. However, one needs to be cautious of this as a blanket statement because achieving and maintaining produce freshness requires best practices at all stages of production: from harvest (correct timing and frequency), to post harvest (timing and method of cooling, and for some crops, *not* cooling), to storage (appropriate length of time and temperature), to packaging, to transportation (length of time and condition). What this means is that for each crop, strengths and weaknesses may exist at different stages of the supply chain, thus making it difficult to say that freshness is a guaranteed attribute for any one local crop. To this point, the complexity of local supply chains and the challenge of understanding the opportunities and barriers

within each one demonstrate why it is necessary to understand the different types of supply chains, specific to a particular and their internal dynamics.

5.0.5 Ontario's World Crops Supply Chain

This section will aim to provide an overview of how world crops move through subsequent stages of various supply chains to reach individual eaters, consumers, and communities. I will preface this section by noting that multiple existing studies have concluded that there is insufficient data and detailed knowledge about current supply and value chains, and that there is a need for further research. Hopefully, there is enough information here to provide a somewhat nuanced understanding about the inner workings of the supply chains most often used for world crops distribution in Ontario.

As mentioned earlier, three main categories of domestic suppliers have been identified: traditional growers, professional growers, and small-scale, local alternative growers. According to Nawaratne (2012) and Aitkens (2014), small-scale growers mostly sell to individual consumers via direct marketing methods such as at farmers' markets and through CSAs (seasonal vegetable 'subscription' programs or buying clubs) and occasionally to specialty ethnic stores, whereas medium to large scale growers predominantly sell to wholesalers/distributors who act as intermediaries between the grower and retailers, or these growers may sell direct to retailers (of which there are several kinds). At present, consumers purchase world crops most frequently from specialty ethnic stores and supermarkets (these may be independent stores or small regional chains), as well as large chain supermarkets such as Loblaws if they carry a supply of ethnic produce (Nawaratne, 2012). Second to this, consumers may also source from direct marketing venues like farmers' markets, or through their own personal production in backyard and community gardens (Baker, 2004).

Moving forward, I will attempt to describe the dynamics between producers, wholesalers/distributors, retailers, and consumers – each category acting as forces on one another, influencing one another across and within supply chains. To begin, the current distribution network for ethno-cultural vegetables has been described as mainly a “buyers' market” (Aitken, 2014). This means that retailers and consumers command and define product standards such as price and quality, and these requirements influence producers and their production processes, rather than the other way around. One aspect of current consumer demand that has been discussed amongst all existing literature is whether there is sufficient consumer demand for *local* world crops, with the emphasis being on *local*, not imported. Unfortunately, conclusions about this vary across existing literature. Thus, very broadly speaking, the specific demand

for *local* world crops appears to be a *very* nascent one. This means that currently, 'local' as a standalone attribute is not yet enough to give local producers bargaining power when working with wholesalers and retailers, not when relatively fresh, cheap, and culturally appropriate imports can be easily sourced. However, what has been explicitly expressed by all ethnic communities and observed in recent studies is that freshness and cultural appropriateness are two of the most important criteria for consumers. Studies have shown that within most ethnic communities, consumers were willing to pay more or travel farther for optimal freshness and appropriate varieties (Aitken, 2014; Filson et al., 2010; Hadrer et al., 2010; Perkins & Walker, 2011; Toronto Food Policy Council et al., 2013). This criterion can shape opportunities and barriers within local supply chains.

Moving backwards through the chain, from consumer to retailers, we will now examine different types of retailers and their needs. As mentioned, specialty ethnic supermarkets (single independent stores and small regional chains) and large chain (typically western) supermarkets that possess an 'ethnic/international produce' section are the primary places where consumers purchase world crops. While all of these retailers require a consistent and high quality world crops supply, the different scales and structures of each supermarket type results in slightly different needs for each, which then shapes their supplier relationships, which subsequently shapes the potential opportunities and challenges for potential new entrants in the world crops sector.

For large chain supermarkets i.e. Loblaws, large and reliable volumes of produce are required to supply their many retail locations. Furthermore, due to the large number of stores that are branded under the same name, look and feel, uniformity across their various locations is extremely important for upholding this branding. This results in a strict set of appearance and quality standards that growers must satisfy if they wish to supply these chains. Furthermore, the scale of these chains' networks limits their flexibility to change or adapt their standards. These chain supermarkets generally source from wholesalers, and if they do partner directly with producers, it will likely be producers from abroad, given the limited number of local world crop producers, the high volume that is needed, and the year-round availability of imports. A final note about large chain supermarkets is that as they become more assimilated into the shopping habits of new immigrants, or as they expand their interest and sales into the 'ethnic market', as demonstrated by the acquisition of T&T by Loblaws Ltd., it is possible for their standards, especially in their competitive pricing, to become the status quo, which smaller retailers must compete with or match.

Independent or regional chains of specialty ethnic stores also frequently source from wholesalers/distributors. However, compared to non-specialty or Western supermarket chains, this retail category is also more likely and open to purchasing directly from farms. Additionally, they are also more likely and open to buying from local farms, compared to Western supermarket chains. This is because their volume requirements may be less, thus giving smaller local operations the chance to meet their quantity needs. Additionally, while these smaller stores also require consistency and uniformity like the large chain stores, it is not to the same degree since they likely have a much smaller network of stores that fall under the same branding. This means there may be more room for flexibility and adaptability in the defining of product standards between suppliers, distributors, and retail wholesale buyers. This said, consumer preferences and priorities still shape retailers' (and thus, wholesaler) requirements for growers/suppliers. To reiterate, generally speaking, one of the priority criteria for ethnic consumers is freshness, with cultural appropriateness coming second.

Next, wholesalers and distributors will be discussed since they are commonly the link between producers and retailers. According to Nawaratne (2012), within ethno-cultural vegetable supply chains, there is significant dependency on intermediaries by both producers and retailers because the production and distribution of world crops is less organized and developed compared to those for Western vegetables. Thus producers and supplies are more scattered and less centralized, requiring more independent distribution agents to link these producers to various buyers/retailers (Nawaratne, 2012). Thus, wholesalers/distributors hold a unique power within the world crops sector (115). To this, Nawaratne (2012) points out that different types of intermediaries speak to the diverse nature of the world crops market (Nawaratne, 2012), while Aitkens (2014) clarifies the difference between 'traditional' versus 'modern' wholesalers (165), both of which exist in the world crops market. Traditional wholesalers are generally smaller entities or operations with limited investment in infrastructure, equipment, or transportation that can process, package or develop raw produce in a way that would add value (Aitken, 2014). Thus these wholesalers prefer large volume transactions that require little to no handling requirements (Aitken, 2014,165). These wholesalers are most often found working with smaller independent retailers and restaurants (Aitken, 2014,165). Inversely, modern wholesalers tend to own and possess more infrastructure and equipment that enables them to 'add value' to raw products via processes such as re-packing, packaging, grading, logistics, transportation and product development (Aitken, 2014). These wholesalers are commonly found selling through the Ontario Food Terminal to both larger retailers as well as independent small businesses (Aitken, 2014). In value chains, the relations between producers, wholesalers and buyers may involve more active communication due to the fact that

each stage of the value chain is working in tandem with one another, to a certain degree, to ensure the availability of a specific product. Furthermore, with products like world crops, where supply may be more limited compared to traditional Western vegetables, value chain actors may have an increased dependency on one another and consequently an increased need to collaborate to a certain degree; despite the competitive pressure for the supply to be cheap and of good quality.

Lastly, having characterized all the different supply chain actors from grower, wholesaler/distributor, to retailers, I will now briefly summarize the types of supply chains in which they operate. According to Aitkens (2014), both traditional and modern wholesalers can be found, and they operate within a mix of supply- and market-based chains, relational and family-based value chains, and structures that are a hybrid of the former and the latter. Very broadly speaking, market-based supply chains operate mostly on the premise of product pricing, thus traditional wholesalers as well as traditional producers are common within this supply chain model. However, within Ontario's world crops sector, value chains have been identified as the more dominant model (Aitken, 2014; Nawaratne, 2012). Furthermore, the types of value chain most prevalent are 'relational' and family-based ones. Value chains, as described by Gereffi et al. (2005):

require the greatest amount of inter-firm governance with complex decisions being made amongst actors in the chain [...] and they may be managed through reputation, or family and ethnic ties. Many authors have highlighted the role of spatial proximity in supporting relational value chain linkages, but trust and reputation might well function in spatially diverse networks where relations are built-up over time or are based on dispersed family and social groups ((Gereffi et al., 2005, 84) in (Aitken, 2014, 11)).

Amongst the relational and family-based value chains in Ontario, Chinese professional producers, wholesalers, and retailers comprise the majority segment of this category. The Chinese community has a long history within Ontario's and British Columbia's (Gibb & Wittman, 2012) agricultural history, and it has ownership of enterprises in all stages of the supply chain (Toronto Food Policy Council et al., 2013). Its farmers make up a large portion of Ontario's 'professional producers' (Aitken, 2014), and their crops account for much of the current local world crops production, and those being purchased by retailers, especially by ethnic supermarkets (Aitken, 2014; Nawaratne, 2012). Given this, some studies have hypothesized that the Chinese network is best positioned to increase the local production of world crops

for local markets (Toronto Food Policy Council et al., 2013). However, given that the Chinese supply chains already have established markets and an established crop repertoire, others question the interest or willingness of these networks to diversify their crop production (Aitken, 2014).

Given that each type of supply chains has its own set of contradictions and conundrums, it is difficult to label one type of supply chain as having more opportunities or challenges than another. Rather, it should be recognized that each supply/value chain presents opportunities and challenges in different ways and at different stages. Furthermore, these various opportunities and challenges will likely hold meaning and significance for specific world crops sectors, i.e. a specific crop or community, rather than being applicable to 'world crops' as a broad category. Thus, the following are some key observations, hypotheses, and recommendations (some of which have been repeated across multiple studies) that warrant consideration as it pertains to the world crops discourse:

- According to Aitken (2014), wholesalers and retailers have unanimously stated that they would be more willing to work with a producer, even if they are new entrants to the sector, if they have a 'production program' (112-115). This is to give buyers greater assurance that producers are committed to a particular crop, in terms of striving for optimal consistency in satisfying both quantity and quality standards.
- Traditional and local alternative growers both have potential to scale up production for local markets, yet they each possess unique challenges that would benefit from more government investment in research to address these challenges. However, both categories of growers can benefit from having improved post-harvest and storage equipment and infrastructure. This is a common weakness especially for traditional growers who find themselves competing with imports more often, due to their scale and shared wholesale buyer target.
- Areas that can use more research include: the role of ethnicity and culture as it relates to production; supply chain development and relations, and consumption; the small-scale ecological sector; and cost of production figures to be made available for farmers.
- Education and promotion about the benefits of local produce needs to be significantly increased and improved upon. Freshness is one attribute of local that should be emphasized, given that this is a priority that is especially significant for all world crops consumers. This would potentially give local farmers one clear advantage over imports, if they are also provided with the training and resources needed to achieve maximum quality through improved production, post harvest and storage practices.

- There is significant room for improving communication of production and marketing data to growers. Currently, existing data is somewhat fragmented and scattered across various online locations. This makes accessing information more challenging and time consuming for growers.

5.0.6 Consumer and Marketing Research

The last section of existing research to be summarized will pertain to community, consumer and marketing research. As mentioned in the introduction, there are already plenty of sales and population statistics to affirm an existing demand and suggest that demand will continue to increase. In addition, community/consumer profiles and marketing research for individual ethnic or immigrant communities has been conducted. The groups that have received the most attention are the major ethnic groups in Toronto, based on population statistics. These groups are: the Chinese, South Asian, Southeast Asian, and African-Caribbean communities (Filson et al., 2010; Hadrer et al., 2010; Perkins & Walker, 2011; Sharifi & Zvalo, 2016; Toronto Food Policy Council et al., 2013). Some of the most comprehensive community and consumer profiles to date include: the “Growing International” series by Farmstart; the “Feeding Diversity” project, a multi-stakeholder research initiative; and market research by Vineland, the University of Guelph, and Trent University.

Although these studies are comprehensive relative to what currently exists within mainstream world crops research, the data available is still quite broad in the sense that they discuss communities of colour under broad ethnic categories, i.e. “Chinese”, “African-Caribbean”, “South Asians”. They do not delve into differentiations specific to regional or cultural sub-groups within each ethnicity. In other words, just as we need to caution against homogenizing the study of ‘ethnic’ supply chains, we must also caution against homogenizing different ethnic subgroups into overly broad categories. Also, while existing community profiles are sufficient as a preliminary database, and they help us understand ‘what’ each group needs and prefers, and ‘how’ and ‘where’ they may source cultural foods, there is more work needed to explore ‘why’. In other words, there is a limited understanding about the cultural, social, socio-economic, spiritual, historical, and political roots or ties that can shape the consumption and purchasing habits of each ethnic group and its sub-groups. For example, it has been observed that terms such as ‘local’ or ‘organic’ resonates differently for individual groups, based on their ethno-cultural and socio-economic background; yet the precise reason(s) for this may be widely complex and varied - not the kind of information that is easily captured via traditional marketing or consumer studies. While it’s understandable that this kind of cultural exploration might be beyond the scope of conventional market-

based studies, these deeper cultural histories and the nuances they affect should not be overlooked or underestimated. This is a gap that can be improved upon within existing world crops research, possibly by integrating knowledge from other fields such as the social sciences, history and cultural studies.

Given these criticisms, the data from existing market research is still extremely valuable and a good starting point. Since it is beyond the scope of this section to fully profile each ethnic community, key facts and figures for each community have been made available in appendix 7. In this section, some key common themes among the various groups will be highlighted, along with a few particular observations to note for later discussions in this paper. Key findings are as follows:

- Freshness is generally considered the number one priority for all ethnic groups. Studies have shown that newcomers and settled immigrant communities are very price sensitive, but despite this, most are willing to pay higher prices and even travel farther for optimal quality produce. This is due to the strong value for home cooking and the preparation of traditional meals (especially amongst newcomers), the strong focus on food or specific cultural diets for their health and medicinal benefits, and the prevalence of vegetarian based diets for various Eastern religions such as Hinduism and Buddhism (Filson et al., 2010; Hadrer et al., 2010; Nawaratne, 2012; Toronto Food Policy Council et al., 2013). Furthermore, the largely imported nature of most world crops may result in optimally fresh produce being more difficult to source, making them a rare commodity in the markets.
- Most studies have shown that ethnic communities generally enjoy shopping at ethnic stores because of the diverse variety and selection, a higher likelihood of culturally appropriate products being available, a sense of belonging, familiarity and community in shopping with other members of the same or similar ethnicity and culture, staff and service that is more knowledgeable about culturally specific products, and service and signage being in their home language (Lo & Wang, 2005; Lo, 2009). These are but a few of many social and cultural reasons, but there is general consensus that ethnic shoppers will go to 'Western' supermarkets for staples such as bread, milk, etc., and they may buy ethnic produce if it is available there. Otherwise, ethnic supermarkets still play a strong role in supplying consumer demand.
- Almost all groups have expressed that they would like to see more marketing and educational materials customized to their specific community and available in different languages (Filson et al., 2010; Hadrer et al., 2010; Toronto Food Policy Council et al., 2013).

- As mentioned in the last section, some studies perceive the expansion of local world crops to be the most feasible or have the most potential with the Chinese community due to its established network of growers and distributors, as well as markets. Second to the Chinese, the South Asian market is also said to have a similar potential due to increasing population and demand (Aitken, 2014; Filson et al., 2010; Hadrer et al., 2010; Nawaratne, 2012). In contrast to these two communities, the African-Caribbean (and particularly the Caribbean market) is expected to be the most difficult to develop. This is because studies have indicated that there is very strong consumer loyalty to farmers from back home. This exemplifies the point earlier that the ‘eat local’ message may resonate differently with individual ethnic groups (Filson et al., 2010; Hadrer et al., 2010).

This last point about how the ‘eat local’ message may resonate differently with each ethnic group is one that I think is fundamental to the crux of the current world crops discourse, which is how to increase the demand for local crops. As it has been illustrated by recent research, producers face substantial agronomic and economic challenges, while distributors and retailers are limited in how much they can leverage the attribute of ‘local’ to justify potentially paying more for local crops. Subsequently, retailers are limited in the premium that they can charge, based on whether there is sufficient demand or valuing of ‘local’ from consumers to motivate their willingness to pay more. It has been found in many general market studies that there is often a gap between the *stated* willingness to pay more, versus the willingness to pay more in actuality (MacRae, 2016). Whether or not this is an issue for our discussion of world crops in Ontario is unclear.

Lastly, to close this section, beyond the common consumer findings and the individual community profiles, there are some conceptual points and critical questions worthy of consideration. The first point, by Sethuratnam (2016), emphasizes that the issue of “breaking into” ethnic supermarkets is largely a social issue that requires critical examination of various social components. Furthermore, Sethuratnam feels that there is inadequate attention given to this aspect of world crops studies and suggests that deeper cultural and social analyses may benefit the sector as a whole. A second point that has been mentioned in existing studies is the issue of acculturation, but it has yet to receive in-depth analyses. Thirdly, sales opportunities within ‘ethnic’ markets have not gone unnoticed by powerful corporate food retailers such as Loblaws. Vetting this observation against the findings about the role and cultural advantages of smaller independent ethnic supermarkets, how will the competition for ethnic consumer dollars shift over time? What will be the fate of smaller ethnic chains and their role in ethnic markets? Consequently, what are the ramifications of these changes further down and across various supply

chains? How will this affect the opportunities and challenges for potential new entrants such as local farmers? Lastly, from a food justice perspective, the factors that affect one's access to culturally appropriate foods have yet to be emphasized or strongly integrated into the dominant stream of world crops research. From my observations, it appears that the current discourse is mostly siloed, with mainstream research like those by Vineland strongly focused on the structural challenges *within* supply chains, while discussions about structural barriers *outside of* supply chains take place mostly within community and food justice based circles. Bridging or integrating these valuable bodies of knowledge is key to understanding all the factors at play when it comes to the question of expanding local world crops production and access. The next section will attempt to address some of the knowledge gaps in existing research and bring into the dominant discourse discussions from a cultural, social and food justice standpoint.

6.0: Organic World Crops Research

In the last section, key findings from mainstream world crops research was highlighted. As illustrated, much of existing literature pertains to large scale, rural, conventional production (both local and abroad), and its associated supply chains, those that enable world crops distribution via small to medium ethnic supermarkets as well as large corporate supermarket chains. But regarding small-scale, possibly urban or peri-urban production, and “local alternative” producers (Aitken, 2014), there is relatively little data. For *ecological* or *organic* production, related supply chains and market demand, there is even less data available. Currently, only a small and preliminary body of data can be found, authored by Nawaratne (2012), Trent University (Sharifi & Zvalo, 2016) and FarmStart (2010), a non-profit that supports new farmers in Ontario. To further confirm the absence of research, a search through the research database at the Organic Agriculture Centre of Canada (OACC) yielded only one additional study taking place at Dalhousie University. The OACC is a national research hub for organic research and its database lists the major organic research projects underway in Canada from 2009 to the present (OACC, n.d.).

With such little organic production and research taking place, why bother exploring this portion of the world crops sector? I would argue that this issue is important from a food justice as well as a health and nutrition perspective. Given all of the reasons for a growing interest in sustainable agriculture and local food systems (i.e. ecological resiliency, personal health, food safety, food security, food democracy and sovereignty, and cultural preservation), examining all of these issues and their relation to the foods and food access of nearly half of Canada’s population only seems logical, and hardly a radical concept. In spite of this, little research exists for organic world crops, thus creating the impetus to explore this topic. Furthermore, from my own experience as a member of the SW Ontario ecological farming community, I can attest to the fact that there *is* a small contingent of organic producers currently experimenting with world crops at a small commercial scale. Despite the fact that these growers comprise a very small niche, the crops that they are attempting to grow have large cultural and health implications for a diversity of ethnic communities. For this reason, their experiences, opportunities, and challenges warrant closer

examination. Moving forward, this section will discuss: existing research on organic world crops production, producers, and supply chains; primary research and findings about small-scale, local, and ecological/organic growers around the Greater Toronto Area; and key themes and considerations regarding the issue of local *and* ecological/organic world crops production.

6.0.1 Existing Production Research and New Findings

Recent mainstream world crops production research has largely focused on conventional production methodologies. This would apply to the research conducted by leading institutions such as the Vineland Research and Innovation Centre. Vineland's work has been the most commonly referenced body of data, even at food and farming events and conferences that are heavily focused around the theme of sustainability. While Vineland's work is providing both conventional and organic growers with unquestionably valuable information such as Ontario-appropriate vegetables and varieties, planting information, harvesting and storage guidelines, and consumer preferences, portions of their research does not meet the knowledge needs of organic growers. Example of this could be information about fertility and pest management. Thus, for organic growers, learning about organic production is often an extremely challenging and unsystematic process; tracking down other world crops growers (who are few and far between), scouring the internet for tidbits of relevant data (often from other regions with substantially different growing conditions, adapting from conventional research, or simply practicing trial and error. Needless to say, this process is time consuming, often ineffective, and a hindrance to the development of an advanced, localized, and ecological knowledge-base around organic world crops production, and consequently, the development of this sector.

However, as recently as 2014, organic world crops research has finally begun to take place (Elford et al., 2016; Abbey, n.d.; Sharifi & Zvalo, 2016). The major institutions currently conducting research include: Trent University, the University of Guelph, the Ontario Ministry of Agriculture, Food, and Rural Affairs (OMAFRA), the Organic Agriculture Centre of Canada (OACC), and Dalhousie University. Since this area of formal research is so new, the data that is available is

limited and far from being conclusive. Thus, I will briefly list the current topics of research and highlight some of the key findings to date:

- Trent University is currently partnered with Vineland, and they are complementing Vineland's conventional research by developing organic field and greenhouse trials for Chinese and Indian eggplants, Chinese and Thai hot peppers, and okra. These three vegetables are the same ones that Vineland is currently focusing on. At Trent, production using grafted rootstock, greenhouse production, and organic fertility, weed, and pests management is being explored (Sharifi & Zvalo, 2016). Thus far, some of the promising results that have been demonstrated include: identifying productive varieties for Ontario's growing conditions; achieving competitive yields (in comparison with conventional yields) using worm castings compost for fertility management; effectively managing weeds with the use of mulch; and boosting plant yields with low-tech, miniature plastic tunnels. Also, Chinese eggplants and hot peppers are proving to be the most suitable for low input organic methods, whose yields have been the most comparable to conventional yields (Sharifi & Zvalo, 2016). In addition to production research, corresponding market research with retailers is also being conducted.
- The University of Guelph, in partnership with OMAFRA and the OACC (among other partners), has recently conducted plastic high tunnel production of crops such as bitter melon, pea shoots, and 'tong ho' (*Chrysanthemum greens*). These studies have indicated significant benefits such as enabling season extension, boosting growing temperature for heat loving crops, and mitigating crop damage that can result from fluctuating and uncontrollable weather conditions (Elford et al., 2016).
- At Dalhousie University, research for the organic production of cassava, sweet potato, tiger nuts, amaranth, malabar spinach, and lemongrass under Atlantic Canadian growing conditions is just in its infancy. Similar to Trent's research, both field and greenhouse production is being explored, along with value added research and regionally specific market research (Abbey, 2016). Additionally, these studies are engaging community-based groups such as Toronto's Black Farmers Collective ("The Black Farmers Collective," 2016). At this time, it is too early to state any conclusive results from these studies (Abbey, 2016).

In closing, the significant implication of these studies is that they demonstrate the potential for successful organic world crops production here in Canada. But this potential is just beginning to be explored in the context of formal research. But outside of formal institutional research, the fact that many tropical or subtropical crops can grow here has already been demonstrated by the vibrant and diverse range of crops found amongst Toronto's backyards and community gardens (Baker, 2004), albeit at small-scales. Even from my own personal experience, when my family and I immigrated to Toronto in 1988, it was not too long before my parents successfully cultivated Chinese bitter melon, fuzzy melon and winter melon in our own backyard. Similarly, I have visited Chinese backyards that are lush and full of the very same crops that formal research institutions are just beginning to explore. To this, while the efforts of home gardeners may seem insignificant to dominant scientific or academic research institutions, especially in relation to large scale commercial production, I feel that the traditional growing knowledge that is embedded within our communities is actually extremely valuable to the broader world crops discussion. The bearers of this knowledge may have been commercial producers back home; this knowledge *could* be rooted in a model of food production that is akin to the agro-ecological systems that are advocated for by the food movement; and lastly, for newcomer communities, the crops being produced by these growers may have just as much, or even greater, cultural, health, and possibly economic significance as the crops being studied by the dominant institutions.

6.0.2 Organic World Crops Producers: Existing Research and New Findings

In this section, the experiences and challenges of small-scale, organic, world crops producers will be discussed. Existing data will be presented, along with new primary data gathered for this paper. Amongst the primary research findings, insights were gained from an interview with a FarmStart employee. This interview explored the opportunities and challenges of the new farmers, and newcomer and immigrant farmers who operated farm enterprises at McVean farm, one of FarmStart's 'incubator² farms' (see note) in Brampton, Ontario. Ultimately, the goal of this section

² 'Incubator farms' are generally farm sites that provide beginner farmers with access to land for them to test out their farm business ideas/enterprise and to support new businesses in their first few years. They can be seen as a type of 'training ground' for new farmers and sometimes access to land is accompanied by access to training programs,

is to address some of the knowledge gaps about small-scale and ecological world crops farmers. Hopefully, these insights can serve as a springboard for broader conversations about how world crops research intersects with the food movement and relates to food justice and sovereignty issues.

To begin, we will start by looking at the multi-layered identity, circumstances, and experiences of small-scale, organic, world crops producers. First of all, many of the challenges that were mentioned for conventional “traditional” producers (Aitken, 2014) may also apply to this group of “local alternative” growers (Aitken, 2014). These challenges include: uncertainties about crop performance under Ontario conditions; challenges accessing seeds and production information; difficulties getting sufficient and skilled labour; fierce competition from producers abroad; uncertainties about local market demand; and challenges making market linkages.

Secondly, in addition to these general challenges, local alternative growers may also face challenges specific to small-scale organic production. These include: finding *organic* production information; sourcing open pollinated seeds if seed saving is an integral part of one’s sustainable farming system; organic fertility management; organic pest management for unfamiliar or uncommon pests; uncertainties about the demand for not only local, but *organic* world crops; having limited distribution and marketing channels beyond the direct marketing methods most common within the food movement (i.e: farmers markets and community support agriculture (CSA) programs); and lastly, the question of whether marginalized communities, who are often communities of colour, can access these culturally appropriate foods based on factors such as price and the availability of channels like farmers markets and CSA programs in marginalized neighbourhoods.

Thirdly, within the small-scale and organic farming sector, new farmers comprise a large portion of the current and upcoming generation of growers. These new farmers embody a unique pattern of traits. According to a recent ‘National New Farmer Survey’ conducted by the National New

equipment, and other support services. Incubator farms generally allow ‘incubators’ to lease land at a subsidized rate for a finite period of time, as determined by the incubator farm’s managing/host organization.

Farmer Coalition and the University of Manitoba (Laforge, 2015), 58% of new farmers are female, the average age of respondents was 38, and 68% of new farmers did not grow up on farms (Laforge, 2015). As a result, “the new farmers of today will have drastically different needs (training, land access, and so on) than farmers of previous generations who inherited knowledge and land from their families” (Laforge, 2015). Similarly, findings from other studies can affirm that new farmers face a unique set of challenges due to their non-farming background and circumstances. In a study on new farmers and ethnic farmers conducted by Ontario’s Greenbelt Foundation, the most significant challenges for new farmers were identified (Mitchell et al., 2007):

- financial viability; accessing start-up capital; the need for additional off-farm work; the largest factor preventing young farmers from farming is finances (42%)
- access to training and mentorship, although most new farmers credited internships to be one of the most valuable learning opportunities, i.e. Ontario’s Collaborative Regional Alliance for Farm Training (CRAFT)
- access to land; barriers to land ownership due to the price of farmland; securing stable and suitable land leasing arrangements
- disconnection from rural Ontario and its agricultural community and resources
- various other challenges: exhaustion, isolation, not enough experience, relationship dynamics, forming partnerships, developing markets, the socio-political environment of our current dominant food system, unpredictability of weather, and the fear of failure
- the following have been identified as factors that would make farming a more feasible and viable career option (percentages are for responses from 29 out of 32 respondents) (25):
 - Financial security 62%
 - More experience 28%
 - Access to land 21%
 - Supportive rural/farm community 17%

Based on these challenges, for a “local alternative” producer who may identify as an organic grower, a world crops producer, as well as a new farmer, the combined challenges that she or he may face are substantial. Now, to add a *fourth* category to this list, there is the ‘ethnic’ farmer who

may also identify as a newcomer or immigrant. Along with this identity and its various associated circumstances, there is yet another layer of issues and challenges to consider. First, studies have indicated that ethnic farmers share many of the same challenges as new farmers (Mitchell et al., 2007). If they are new to Canada, then they are likely to be new entrants to the agricultural sector as well. Thus they may face similar barriers as new farmers, such as accessing land, start-up capital, and practical production and business training (Mitchell et al., 2007). Secondly, there are unique challenges for newcomers such as: language barriers; connecting to the Canadian farming community – including meeting other farmers; learning about local farming organizations; familiarizing oneself with government agencies and extension services; the lack of a unified farming community amongst immigrants – “the majority of whom reside in cities, often in high-rise apartments and who work in other occupations, in spite of their own agricultural background” (Mitchell et al., 2007, 2); farming in Canadian soil and climate, and learning about different equipment and techniques (Mitchell et al., 2007). Furthermore, I would add that the risks already inherent and common to farming may be exacerbated by other transitional challenges associated with the immigration experience. These may include constrained finances, a limited network of social support, and employment. However, with respect to world crops production, newcomer farmers may have advantages such as in-depth farming knowledge, methods of farming that may be valuable and applicable here, knowledge of world crops varieties and cultivation methods, an understanding of world crops from a cultural and culinary standpoint, a natural or personal connection to local ethnic or immigrant communities, and an understanding of what marketing strategies may be effective for ethnic communities.

In closing, as I see it, based on the characterization of this demographic of growers, most “local alternative” growers and the challenges they face exist at the junction of all or two of these three categories: 1) the challenges of local world crops production in general, 2) the challenges that face organic farmers, particularly small-scale and new farmers, and 3) the challenges specific to ethnic farmers, farmers of colour, and newcomer and immigrant farmers. This makes for a complex layering of challenges faced by small-scale, organic world crops farmers of colour. In the next section, more details regarding the nuances of this demographic and their challenges will be explored.

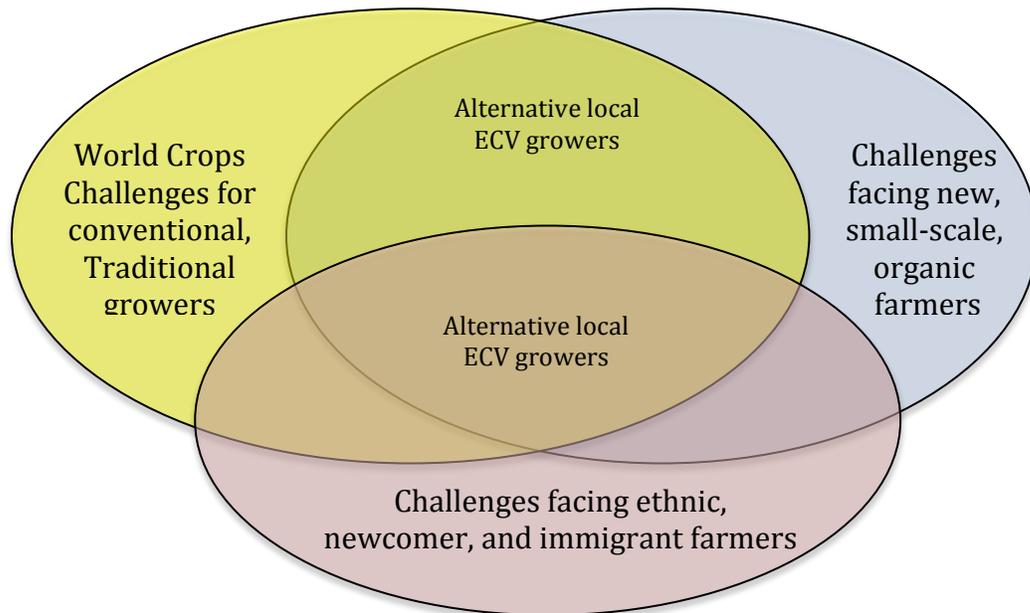


Figure 1: 'Alternative local' ECV growers at the junction of overlapping challenges from three different categories of growers.

6.0.3 Newcomer and Immigrant Farmers, Farmers of Colour: New Findings and Lessons From McVean Farm

In this section, the goal is to dig deeper into the experiences, opportunities and challenges of ethnic farmers who are producing local and organic world crops. Findings from an interview with Sri Sethuratnam will be shared. Sethuratnam was a Farmstart staff who worked closely with farmers at McVean farm, one of Farmstart's incubator farms in Brampton, Ontario. Based on his observations and interactions with farmers, his perspective will elaborate on some of the challenges discussed in the last section, and they will also introduce themes and issues not commonly mentioned in existing world crops discussions. I have chosen to explore McVean's farmers and their experiences because they represent one of the largest concentrations of newcomer and immigrant farmers within the ecological/sustainable farming sector in Ontario (Sethuratnam, 2016). This last point is affirmed by other studies like Nawaratne's (2012), which drew heavily upon the experiences of McVean's farmers to exemplify the opportunities and challenges that face small-scale, local, world crop farmers. Furthermore, since the closure of

McVean farm's incubator program in 2015, most of its former participants have struggled to transition successfully out of the incubator program, to access land through other means such as purchasing or long-term lease agreements, and to continue their farm businesses outside of McVean (Sethuratnam, 2016). As a result, understanding these challenges seems somewhat representative of understanding the challenges facing newcomer and immigrant farmers in and around the GTA, given the concentration of this demographic within McVean's community of growers.

Before I begin the discussion regarding their successes and barriers, I will briefly describe the McVean program and its farmer community, including some facts and statistics that may not be commonly known or outlined in existing literature. Unless otherwise indicated, the information below was gathered from my interview with Mr. Sethuratnam (2016).

McVean's incubator program:

- Program duration: 2008 to 2015
- Program goal: to provide new farmers with access to land, major infrastructure and equipment (cold storage and tractor services), new farmer training, and other support services and resources.
- Incubation model: a graduated model aimed to nurture small-scale, organic, commercial growers, whereby first year participants (known as "test croppers") were given $\frac{1}{4}$ acre to test their interest and commitment. From there on, participants had opportunities to lease larger plots of land at a subsidized rate. The maximum leasing period was 5 years, during which participants had access to FarmStart's suite of training programs to help them build their business. The average land base was 1 to 4 acres.
- Total participants from 2008 to 2015: approximately 50 farmers
- Number of participants who have successfully transitioned out of McVean and continued their independent farm enterprises outside of McVean: approximately 4 to 5

McVean's farmers:

- Ethnic background(s): according to Sethuratnam, there was certainly a dominant international/immigrant community at McVean, but there was not one dominant ethnic or cultural group because there were farmers of all different backgrounds, including Canadian and those of European descent.
- Previous farming experience: ranged from 0 to 10 years, with the average being 5 to 10 years of prior farming experience from abroad. The majority of past farming experiences were small-scale commercial production for market. Some farmers had subsistence farmed, but this was the exception more than the norm.
- Nature of McVean enterprises: 100% of incubator farmers grew and sold their produce to some extent.
- World crops production: approximately 60 to 70% of incubator farmers grew 'world crops'
- Main marketing channels: mostly farmers' markets and CSAs, with the exception of one or two farmers who grew for wholesale.
- Reasons for farming: according to Sethuratnam, the desire to farm is too complex and varied amongst the community farmers to generalize. Often the reasons are deeply personal and difficult to capture via conventional survey or research methodologies. However, he did observe the strong desire to connect with the land and a passion for food as dominant themes. To add to this, Nawaratne's study (2012) identified a range of reasons why McVean farmers engaged with world crops production, including health, personal consumption, cultural connection, utilizing one's existing knowledge and skills, and a desire to educate others (p.68).

From this basic description of FarmStart and its community, I will now summarize some of Mr. Sethuratham's perspectives on the program and its participants' strengths and weaknesses. Starting with McVean's farm and training model, Sethuratnam strongly emphasized that one of McVean's greatest strengths was its combined offering of land access *and* farm training, coupled with its urban location (Brampton) that was also close to a large city like Toronto. Sethuratnam credits this specific combination as the primary reason why such a large contingent of ethnic and

new farmers developed at the McVean site, given that the initial recruitment process was not especially targeted at newcomer or immigrant communities. While there were some attempts to conduct outreach work in partnership with immigration settlement services, Sethuratnam recalls that the greatest surge of program applications occurred following an article announcing McVean's opening in the Toronto Star, one of Toronto's mainstream newspapers. As mentioned, given that the majority of new immigrants settle in urban centres, it is understandable how McVean's location was critical to making farming and farm training opportunities accessible to newcomers and immigrants. Sethuratnam strongly believed that the access to land, which provided participants with a tangible opportunity to apply their knowledge, was extremely fundamental to the popularity of McVean's program. Sethuratnam described Farmstart's training and incubation model, as well as the offering of a tangible "next step" that went beyond conventional education methods such as simply workshops and classroom learning, as something that was unique and extremely valuable for engaging newcomers in agriculture – an opportunity or process that may not exist otherwise.

In terms of production and marketing, Sethuratnam discussed some strengths and weaknesses that are important to consider. Generally speaking, Sethuratnam stated that he did not observe any production and marketing challenges that was profoundly significant or insurmountable. New farmers with zero experience faced a steep learning curve, as one would expect, but for those with previous farming experience, their strengths were their familiarity with world crops, and in understanding the needs and demands of their communities. However, they faced challenges adapting their farming knowledge to Ontario conditions, and adequate planning and sufficient labour to enable scaling up their production. This last point was one of the most common challenges. Additionally, for marketing, farmers often overestimated the popular CSA model and its potential as a "silver bullet" solution to a strong farming income. In other words, while the CSA model can be very effective and profitable, its success strongly depends on a farmer's ability to plan and execute a specific production model that requires expertise in succession planting, a planting schedule that ensures the continuous harvest and availability of staple crops throughout a season. At McVean, Sethuratnam observed many newcomer farmers attempting to implement CSAs pre-maturely, before their knowledge and skills were sufficient to successfully supply a CSA program. Thus, this CSA example was representative of one of the biggest problems with farmers

“over-marketing”, and as a result, taking on too much, too quickly. In spite of this, Sethuratnam reiterated that most farmers were relatively successful with production at a small-scale, and that many of the existing challenges were ones that could be resolved with the appropriate training and resources over time.

Relative to the number of production challenges described, Sethuratnam described new and ethnic farmers as having strong marketing skills or being quick to develop these skills. A common marketing strategy for newcomer farmers was initially selling to their own communities, then expanding their markets over time. Tapping into popular and established sales channels like farmers’ markets was the most common strategy, and in recent years, Sethuratnam observed increasing interest from market managers for ethnic farmers to vend at markets. Challenges in implementing CSAs have already been discussed, but these aside, Sethuratnam did point out a significant need for more education and promotion around the benefits of local and organic world crops, such as freshness and quality, in order to increase the general market demand.

Finally, Sethuratnam imparted some unique perspectives on the way that newcomers’ agricultural knowledge and skills are recognized, valued and nurtured. Unfortunately, drawing from his professional as well as his personal experience, Sethuratnam has substantial critiques on this topic. Beginning with his own experience, Sethuratnam spoke of the unique challenges that he experienced first-hand as a newcomer to Canada, over ten years ago. Despite his love for farming and having twenty years of experience in agriculture and farming prior to immigration, he was “utterly frustrated by his experience with the settlement process because he found that there was a lack of understanding or knowledge about farming as a life path. There were no linkages between the settlement sector and farming. Often he was told to consider an entirely new career” (Guelph Wellington Local Immigration Partnership, 2013). Sethuratnam critiqued that due to the general ignorance about farming, and the knowledge and skills of the agricultural sector, front-line settlement services staff are often unaware of what indicators to look for and as a result, they fail to identify (an) existing skillset(s) related to this sector. This results in the food and farming sector being overlooked or dismissed as a career path to explore with newcomers. Furthermore, Sethuratnam perceives that settlement services do not adequately prioritize the topic of food and access to culturally appropriate foods. Sethuratnam feels the need for food and its significance to the health and social/cultural well-being of newcomers to be better recognized.

Beyond the inadequacies in acknowledging and nurturing the agricultural experiences of newcomers, Sethuratnam recognizes that even if new immigrants find their way into the agricultural sector, there are issues with their engagement with the broader agricultural sector and community. First of all, professionally speaking, it must be acknowledged that newcomers may require additional support services to help them transition and develop their career path. Sethuratnam does not see this type of extra support to be adequate or available within the agricultural sector. For the most part, he observes the agricultural sector to be invisible to settlement and career services agencies, which subsequently creates barriers for newcomers to enter the industry. Vice versa, newcomers and their relevant knowledge, skills and experiences are mostly 'invisible' to the agricultural industry or severely under-recognized and under-represented. Unfortunately, Sethuratnam observes this under-representation and under-recognition of farmers of colour, and newcomer and/or immigrant farmers to take place to varying degrees within the conventional agricultural sector, the sustainable agricultural sector, as well as within the mainstream food movement. In the specific case of McVean, Sethuratnam notes a general social and cultural disconnect between its ethnic farmer community and the broader ecological farming community in southwestern Ontario, one evidence being the minority presence of this community at regional farm meetings, events, conferences, etc.

Finally, Sethuratnam suggests that within the conventional and the sustainable agricultural sector, the established farming community could improve their efforts to 'reach out', 'welcome', engage, and integrate newcomer farmers. For Sethuratnam, the under-representation of farmers of colour is less so the result of intentional exclusion, but rather an indicator that we need to heighten our awareness to the challenges and barriers that may face newcomer farmers, and their entry into the agricultural sector. If we fail to support newcomer farmers and agricultural professionals, Sethuratnam sees this as a disservice to the industry and to ourselves - for we lose "a massive opportunity to gain from their knowledge as they end up working in other industries. He's hoping that we all grow in our knowledge of how to support newcomers in their quest to continue their love of farming, and thereby help them become the new generation of farmers that Canada desperately needs to grow healthy food" (Guelph Wellington Local Immigration Partnership, 2013). To this last point, Sethuratnam also points out that one of the biggest challenges in the current world crops discourse is division and conflicting opinions about which farming/farmer

demographic is best suited or best positioned to develop into the local world crops growers of the future. Demonstrated by discussions in earlier sections of this paper, this question is a complex one that evades a simple answer, given the different strengths, weaknesses, and circumstances of “traditional conventional” producers, “professional ethno-cultural vegetable (ECV) producers”, and “local alternative” producers, and their associate supply chain and market relations (Aitken, 2014). However, this question remains worthy of continuous examination, since the community whose merits are most valued will benefit in tangible ways, for example in the form of government funding and supportive resources.

Lessons from McVean

To conclude this section on organic, ethnic world crops producers, I will briefly summarize the lessons learned from the McVean project and its farmers. As mentioned, since the project’s completion in 2015, very few McVean farmers have been able to secure land and continue their operations outside of McVean. Many of their barriers were those common to new farmers in general, regardless of whether they are ethnic farmers or world crops farmers. These include: the exorbitant price of land; the complexity of securing appropriate land-leasing arrangements that are also close to viable markets; the lack of availability of start-up capital; and the struggle of achieving a livable wage (Laforge, 2015; Mitchell et al., 2007; Seccombe, 2007). However, while some elements of the program were extremely successful, such as the pairing of land access and training opportunities that was already discussed, Sethuratnam reflected on elements that can be improved or redesigned for future projects. The following are some the possible changes or improvements:

- Reducing the degree of subsidization for the annual land rent for an incubation plot. Also, increasing the price of service and equipment rental fees. The goal of this would not be to exclude farmers, but to provide farmers with a more accurate representation of what their financial realities would be like beyond the incubation stage. A balance needs to be struck so that fees and rates are still subsidized to assist start-up farmers, but done in a way that avoids the creation of a system of dependency, and one in which farmers are required to

develop enterprises that can meet “real-life” operating expenses. Thus a strong emphasis on self-sufficiency may be beneficial.

- Along a similar vein, more in-depth and explicit discussions can be had with farmers at the start of their incubation about the financial realities of farming beyond McVean. Challenges like land access needs to be made more explicit so that farmers can begin their transition planning earlier in their incubation period. In other words, more comprehensive discussions need to be had with applicants about their long term goals and plans, and the range of options that are realistically available.
- Exploration or considerations of establishing a more co-operative model at the inception of a project like McVean. This may increase small producers’ chances of long-term success.

In closing, despite the fact that each demographic of growers faces unique opportunities and challenges as potential future local world crops growers, Sethuratnam concludes on a note that warrants consideration, in the context of recent statistics about Canada’s farming sector. According to Food Secure Canada, 50% of Canada’s farmers are 55 years or older, and 75% of these farmers are said to be without successors for their farms (Food Secure Canada, 2016). To what extent do these statistics apply to the farmers that mainstream world crops studies are focused on, primarily larger-scale, conventional, ‘traditional’ growers in rural Ontario? If so, who will take over these farm enterprises? And considering other statistics, such as the majority of new farmers coming from non-farming backgrounds, and the projection that immigrants are expected to account for two-thirds of Canada’s future population growth, the question of who will be our future (world crops) farmers is a critical and urgent one. However, if the agricultural sector as a whole is serious about expanding local world crops production and supporting the development of “local alternative” growers, then the following recommendations from Sethuratnam should also be noted as part of the broader world crops discourse:

- Recognize and value the farming knowledge of newcomers, improve settlement services’ ability to assess for this skill set and the appropriate indicators, and include agriculture as a potential career path for exploration when working with new immigrants.

- Encourage the agricultural sector to make the same acknowledgements described above, value what newcomers may have to contribute to the sector, and dedicate resources to help newcomers overcome their unique challenges and needs, thus improving their transition and integration into the industry.
- Create more urban or near urban incubation sites like McVean so that land access and farm training opportunities are accessible to the majority of newcomers in urban centers. In these projects, design programs specifically tailored to the needs of newcomer farmers. Recognize that access to sites like McVean provide a crucial first step and exploratory opportunity for many newcomer farmers.
- Recognize and promote the hybrid value of projects like McVean as both farm training and business development sites for newcomers. What's more, recognize that the trials, errors, and lessons from a project like McVean are part and parcel of a much longer trajectory and larger mission to build up local ethnic farmers.
- Increase assistance and support for world crops marketing to help farmers make market linkages.

7.0 Exploring Chinese-Canadian Communities and Strategies for Engagement in the Food Movement

In current studies, insights into the needs and demands of individual ethnic community have offered preliminary knowledge about taste preferences, purchasing habits, interests and concerns. While this is a very useful first step, deeper insights can be gathered regarding the “why” behind these descriptors. Furthermore, existing literature has cautioned that broad sweeping characterizations of ethnic communities as a whole are insufficient for understanding how to genuinely increase each community’s engagement and interest in local food and local food systems. Also, a deeper analysis is required to understand what factors affect opportunities and barriers for each ethnic or cultural group and their *ability* to engage with local food and the food movement. Thus, given this need for deeper explorations of potential political, economic, social and cultural factors, and understanding that each ethnic/cultural group requires their own reading – this section will attempt to focus specifically on exploring the Chinese community more deeply. At this point, it is also important to preface that even this statement, that of approaching the “Chinese” community is broad and ultimately insufficient, given the specify regional or sub-cultural differentiations within the broad category of “Chinese”. But given the capacity of this paper, it will not be possible to break down the discussion of the Chinese community into individual sub-regional or cultural categories. However, much of the primary research that was conducted pertains mostly to the Chinese community from Hong Kong, especially the wave of immigrants from the late 1980s and early 1990s, and subsequent generations. Interviews were conducted with food movement and community services actors from Hong Kong, Scarborough, Toronto, and Vancouver. These interviews served as the primary sources of data for this section, as well as my own experiences as an organic Chinese vegetables market gardener in Toronto. By exploring the deeper political, economic, cultural and social factors at play, which shape and affect the cultural attitudes of these communities, the ultimate goal is to develop a more nuanced understanding and characterization of the Chinese community, understand how strategies to engage this community in the local food movement can be improved, and what important factors may be absent from the dominant discourse at this time.

The rationale for choosing to focus on the Chinese community is based on both personal reasons and in response to some of the findings in this paper thus far. Being of Chinese descent myself, this community has direct relevance to me and I felt it would be valuable to explore this area as a member of the community. While this inevitably injects an element of subjectivity into my analyses, my participation in

this community can also impart insights that may be hard to capture by an outside observer. Additionally, the Chinese community has been mentioned throughout existing literature as being the most “ready” for further engagement with when it comes to expanding local food. This hypothesis will be further examined in this section.

7.0.1 Drawing Connections: Alternative Food Networks in China and Hong Kong

To begin understanding Chinese-Canadians’ relationship to food and farming, especially the food interests and concerns of first generation immigrants from Hong Kong in the late 1980s and early 1990s, I decided to explore food movements in Hong Kong and China as a starting point. I wanted to examine what these relationships looked like for Chinese citizens abroad, based on my observations that many first generation immigrants stay closely connected with the culture ‘back home’, despite of their settlement here. Outside of work life, many first generation immigrants continue to consume news and entertainment from abroad , often more so then with news and entertainment culture here. Thus, I strongly believe that culturally, many older first generation immigrants continue to embody and share the values and perspectives of their communities back home, even after decades of settling here. In some cases, I would argue they are more strongly influenced by their home culture than Canadian culture, and that this is a factor in how they navigate their everyday lives here in Canada. Thus, through this exploration, I hope to understand the ‘why’ behind some of the characteristics that have been attributed to the Chinese community here.

To begin examining alternative food networks (AFNs) in China and Hong Kong for insights, I had the following range of questions: Is there an alternative food movement in Asia similar to those occurring in the West? What is the relationship between Chinese citizens and food, farmers and the food movement in Asia? Are these dynamics similar to those that are driving and enabling the food movement in the West? How do these dynamics translate amongst Chinese immigrants situated in a specific region such as the Greater Toronto Area? Finally, how do these dynamics or relations overseas influence the way Chinese-Canadians engage, participate, or relate to the local food movement in Toronto? To answer some of these questions, this section will review some preliminary findings about key developments and characteristics of AFNs in China and Hong Kong, followed by a discussion of areas that are especially relevant to the Toronto context.

Re-evaluating the definition of “alternative”

Before comparing and contrasting ‘alternative’ food networks in Asia with those in the West, Si et al. (2015) discuss the importance of re-evaluating the concept of ‘alternative’ or ‘alternativeness’. The key point made by Si et al. is that one must caution against evaluating or qualifying the definition of ‘alternative’ by an overly narrow set of standards that are assumed to be ‘universal’, but may in fact be based on dominant Western notions and values (300-303). One example provided by Si is Wilson’s (2013) notion of ‘autonomous food spaces’ as those that are “based on a desire to disengage from capitalist food systems to build new forms of social and economic relationships and identities”(720). While this definition does align with key ‘food sovereignty’ principles, those that are the foundational ethics behind many regional food movements, Si et al. (2015) caution that adhering *exclusively* to a definition of ‘alternativeness’ like Wilson’s can result in an over-simplification of the nuances and complexities of AFNs situated in different social, political and economic contexts (300-301). This over-simplification can also result in over-looking or dismissing other dimensions of ‘alternativeness’ that exist within a movement, despite the fact that a particular AFN may not fulfill or develop a “full spectrum of alternativeness” (Si et al, 2015, 300). In other words, what may not be perceived as ‘radical’ or ‘alternative’ in a Western context may in fact be very alternative and challenging to the social, political or economic norms in other regional contexts. This may be especially accurate in the case of China and Hong Kong, where AFNs are relatively nascent compared to the food movements in the West (Si et al, 2015, 300-301).

This emphasis on broadening and diversifying the concept of ‘alternative’, and evaluating this notion by embedding it in a *specific* socio-political-economic context, is an important consideration when attempting to engage a specific cultural demographic, like the Chinese community(ies) in food movement work. A culturally specific understanding of how ‘alternativeness’ is interpreted by a specific community may reveal the ways and degree to which Toronto’s local food movement may or may not resonate with this community.

Characterization of Chinese AFNs

In this section, I will discuss some of the characterizing features of Chinese AFNs. These observations are taken from existing academic research, as well as my in-person discussions with various food movement activists in Hong Kong and Toronto. Within academic literature, a major theme that has surfaced is the

issue of trust. Trust can be seen as an overarching theme that relates to other major topics relevant to Chinese AFNs such as: consumer concerns about food safety (Si et al., 2015), the distrust and even ‘vilification’ of peasant farmers (Chen, 2014; Regnier-Davies, 2015; Si et al, 2015; Wang, 2015) and a distrust of the Chinese government’s food safety regulations and certification processes (Si et al., 2015).

In addition to the issue of trust, overall, AFNs in China have been described to “display strong evidence of alternativeness around food ‘healthfulness’ and nutrition, but weak representations of social and political elements in terms of reconnection, social justice, and forms of political association” (Si et al., 2015, 303-304). In discussions with food movement activists in Hong Kong, a similar description was given regarding AFNs in Hong Kong; that they are largely driven by consumer-based concerns for personal health and safety, with little interest on the part of consumers in broader systemic or food sovereignty related concerns such as environmental degradation, preserving farmer livelihoods, or regaining democratic ownership of the food system (Lam, 2015). To clarify, in the case of both China and Hong Kong, the latter principles are promoted by food movement actors and grassroots AFN initiatives, but it is amongst mainstream consumers and on the demand side that concerns remain limited around personal nutrition and food safety (Lam, 2015; Lau, 2015; Si et al., 2015, 304). This can be said as well of western consumers, however, with the recent “re-branding” of farmers within the food movement, this new “romanticization” over local farmers can be leveraged to further encourage those with an interest in local food to support farmers.

Trust and food safety

As mentioned, distrust of the dominant food system by Chinese consumers is a theme that is not only prominent within academic analyses of Chinese AFNs, but it is also one that holds historical significance in the development of Chinese AFNs. Amongst the many ways in which consumer trust has been damaged: between consumers and the state, consumers and farmers, consumers and the market, and so forth, “disruptions” in “institutional trust” (Wang et al., 2015) specifically around food safety have been the *most* significant in the shaping of Chinese AFNs (Scott, 2014; Si et al, 2015; Wang et al., 2015).

First, ‘institutional trust’ is one of three types of trust relationships outlined by Wang (2015). These three types are: individual, organizational, and institutional (Wang, 2015, 2). Each of these classifications describe specific mechanisms and processes by which trust is developed and reinforced, and inversely, the conditions that can disrupt each type of trust and those that are required to rebuild trust once it has

been disrupted (Wang, 2015, 2). Secondly, to illustrate the importance of food safety concerns in the development of Chinese AFNs, reoccurring incidences of food scandals in China over a decade's time have been attributed as one of the biggest triggers of the alternative food movement. It is these incidences that have broken consumers' 'institutional trust' and as a result, have directed consumers' interests towards organic products along with alternative food distribution channels (Scott, 2014; Si, 2015; Wang, 2015). Many of these food scandals occurred within the conventional and large scale supply chain, and they were widely publicized, with the most notorious incident being the melamine-tainted baby formula scandal in 2008 (Wang, 2015, 3). Following these incidents, despite of state efforts to in the 1990s and 2000s to establish stringent new food quality certification standards, laws and regulations, food safety problems continued to persist, further disintegrating consumers' institutional trust (Wang, 2015, 3-4). The effect of this on Chinese consumers' relationship with the food system, as well as their purchasing habits, has been a general distrust of institutionally endorsed certification and organic food labels of any kind (Scott, 2014; Wang, 2015).

Additionally, barriers to the reestablishment of institutional trust have motivated consumers to seek out, 'reconstruct', and 'redevelop' (Wang, 2015, 7) new trust relationships at individual and organizational levels. An example of 'individual' trust building may involve repeated interactions with individual producers and being reassured of their production practices and the quality of their products over time (Wang, 2015, 7). Similarly, developing organizational trust would also entail a process of repeated interactions and affirmation with grassroots organizations, actors and initiatives such as farmers' markets (Wang, 2015, 7). In both cases, the need for information transparency and opportunities for consumers to participate in decision-making and evaluation processes (something that is absent in the citizen-state relationship) is key to building trust (Wang, 2015).

In summary, to understand the dynamic between consumers and Chinese AFNs, it is important to take note that food safety concerns have been identified as the dominant and key driver of consumer interest in AFNs (Scott, 2014; Si, 2015; Wang, 2015).

Consumer-farmer relations

Continuing along the theme of trust, I will now briefly discuss the challenge of trust between Chinese consumers and peasant farmers. This consumer/farmer relationship may have significant implications for the ways in which Chinese citizens overseas may respond to the advocacy for farmer livelihoods that

is a common part of the Western food movement's ethos (Wittman, 2010). Within Western food movements, it can be observed that a romanticized 'agrarian narrative' or the valorization of farmers can help to educate and convince consumers about the importance of supporting farmers' livelihoods (Sackman, 2005; Alkon & McCullen, 2011, 945).

However, in China and Hong Kong, common opinions of peasant farmers are more negative – to the point of being 'vilifying' (Regnier-Davies, 2015). Peasant farmers are often perceived by the general public as "selfish and shortsighted" (Si et al., 2015, 303), "not modern enough" (Scott, 2013, 8), and even a potential "risk to the food system" (Scott, 2013, 8). These perceptions may stem from myriad interconnected historical, social, political, and economic reasons that are too complex to delve into in this paper. However, in the surge towards ever-increasing modernization and urbanization, especially in mainland China, it is possible to see how the values and lifestyle of peasant farmers may appear backwards and anti-modern or anti-progress. This narrative, which paints peasants and peasant agriculture as being dated, obsolete, irrelevant, and uncivilized, while capitalist, large scale and high-tech agriculture is portrayed as the only form of agriculture capable of feeding the world, is a historical process that has been ongoing since the beginning of the development of capitalist agriculture in the West (Handy and Fehr, 2010).

In China and Hong Kong, historical as well as current events may also be helping to fuel this dominant narrative. Historically, negative associations with Maoist era peasant agriculture may still play a role; the rapid modernization and urbanization of China further validates modern and urban values; Chinese residents and their continuous experience with food scandals may further reinforce the perception that high-tech agriculture is the cleaner and safer solution. To add, in Hong Kong, similar to other global cities, housing development directly competes with farmland preservation and those who advocate for farmland conservation can be perceived as 'idealistic', 'ignorant of the reality of housing issues', and protesting what is perceived as the common sense solution to housing shortages and rising home prices (Lam, 2015; Lau, 2015). Lastly, with regards to the unique relationship between Hong Kong and China, Hong Kong and many of its citizens have had a long-established identity as an international and cosmopolitan city from its former days as a British colony (which only came to an end in 1997). One result of this is an attitude of superiority on the part of many Hong Kong natives, who identify Hong Kong and themselves separately from China, perceiving themselves to be the more developed and 'civilized' counterpart to China and Chinese 'mainlanders'. This, combined with the diminishment of Hong Kong's own agricultural industry and the limited opportunities for Hong Kong citizens to interact with

agriculture and producers, has resulted in a derogatory association with farming and peasants or 'mainlanders' from China, and an absence of opportunities for this perception to be challenged through education. Thus, this poses a significant cultural barrier for the food movement in its attempts to broaden and deepen consumers' concerns to include the consideration of farmers, farmers' livelihoods and preserving rural communities.

Unfortunately, due to the factors just described, Chinese AFNs are likely still a long way from being able to transform consumers' concerns to encompass a more holistic range of environmental and social justice values, in addition to existing nutritional and safety concerns. An illustration of this point can be taken from Si et al's (2015) research regarding the feedback from consumers at one of China's most prominent farmers' markets, the Beijing Country Fair (306). According to Si et al (2015), despite the market organizers' strong ethical positions, market organizers have faced "criticism from customers for being too 'producer-centered' and 'disparaging consumers' interests' by emphasizing the central position of farmers within producer-consumer relations, giving farmers a role as educators of consumers" (306). Contrasting these comments with my own experience of farmers' market customers in the Canadian context, where the desire to support local farmers is a prominent part of the ethos of the food movement and its supporters, I think this disconnection between consumers and farmers within Chinese AFNs is worth consideration when working with Chinese citizens within the food movement in the West.

Citizens and government

Finally, a look at the role and actions of the state can provide additional insight into how China's political and economic context shapes and limits the ability for Chinese AFNs to be more 'alternative' in a wider range of dimensions: socially, ecologically, economically, and politically. Across a range of studies, there is relative consensus between both scholars and local food movement actors that existing state support for AFNs are insufficient and superficial (Scott, 2014, 7). State responses are seen as lacking any real intention to empower small farmers or change the broader system that creates conditions that are conducive to food safety disasters. This should come as no surprise, the fact that state support aligns with the values and logic of the dominant capitalist system. In the context of food and agriculture, these values manifest in the forms of: poor enforcement of food safety laws and regulations; the absence of consultation processes with citizens in the development of new laws and regulations (Scott, 2013); a lack of communication and transparency regarding how organic certification is granted (Scott, 2013); continual support for large-scale and high-tech production with minimal efforts to reduce synthetic

inputs (Scott, 2013, 7), and the displacement of peasant farmers, replacing them with “the new peasantry” (Scott, 2014; Si, 2015; Wang, 2015).

To elaborate on the last point, this ‘new peasantry’ consists of formally well-educated entrepreneurs who dominate and repopulate the countryside as farm owners and operators, while original peasant farmers are hired as field labourers with little input in decision making processes (Scott, 2013; Si et al, 2015, 305). Additionally, most of the ‘new peasantry’ are “market-oriented entrepreneurs” (Si et al, 2015, 305) and as a result, new farm enterprises operate “within rather than beyond neoliberal market logics [...] and some of the elements of alternativeness may thus be subdued in order to cater to consumer needs” (Si, 2015, 305).

Given the factors just described, it is clear to see that the relationship between Chinese AFNs and the state suffers a tension that is not dissimilar to the conflicting values between food movements and state governments elsewhere in the world. However, one final point or question that may be worthy of consideration, specific to the context of Chinese AFNs, is to what degree an ‘alternative’ movement can proliferate in a highly restrictive and oppressive political environment like that of China’s ((Ho & Edmunds, 2008) in (Si et al., 2015, 308)). According to scholars and local Hong Kong activists alike, ‘alternative’ initiatives are alleged to move “cautiously to evade even the slightest hint at organized opposition against the central Party-state” ((Ho & Edmunds, 2008) in (Si et al., 2015, 308)). These alternative initiatives include vehicles that are common to Western food movements and not typically perceived as highly political agents, i.e. ie: farmers’ markets, buying clubs, and NGOs. Thus, AFNs in China tend to take a “fragmentary, highly localized, and non-confrontational form” ((Ho & Edmunds, 2008) in (Si et al., 2015, 308)) and their political alternativeness is not always apparent or explicit ((Whatmore et al.) in Si et al., 2015, 308). Finally, it is relevant not only to consider how this political environment shapes AFNs, but also how it affects the political consciousness of consumers and their willingness to politicize themselves, their communities, their interests or concerns, and the form of their engagement or participation with and within AFNs.

Conclusion

In summary, in the overview of Chinese AFNs, it is possible to see that they share some similar challenges as those confronted by AFNs elsewhere in the world. These common challenges include conflicting values between AFNs and the state / state agriculture, the dominance of market-based solutions that are

vulnerable to co-optation by capitalist ventures, fragmented or inconsistent enforcement of state laws and regulations, the persistent emphasis on industrial and high-tech solutions to agricultural problems, the challenge of expanding consumer concerns towards structural issues and beyond the individual realm, and finally, the challenge for AFNs to further politicize their activities, integrating social, cultural, political, economic, and ecological dimensions. While these challenges are daunting for AFNs in any context to surmount, some of the characteristics of Chinese AFNs result in additional barriers that amplify the challenge. While the vilification of farmers makes it particularly difficult to advocate for farmer livelihoods and the preservation of farmland and rural communities, China's tightly controlled political environment constrains AFNs' abilities to organize and politicize. This leads both food movement initiatives and citizens' concerns (and actions) to remain within the safety of non-confrontational realms such as market-based solutions that have their limitations in challenging the dominant system. Given all this, along with the nascent nature of Chinese AFNs, it is uncertain how the food movement might develop in a transformative way in China and Hong Kong's socio-political-economic environment.

So how does all of this translate in the politics and consciousness of Chinese citizens following immigration and settlement in other countries, such as Canada, and how does this affect their response to and interaction with Western food movements? In the case of Toronto, based on discussions with local food movement actors, in combination with my own personal experiences and observations, I would argue that many traits of the consumer culture in Asia continue to play a role amongst Chinese-Canadians after their migration to Canada. Especially in the case of first generation and middle-aged or older immigrants, they often remain strongly embedded in the trends, values, and culture of their homeland via personal relationships and popular media. Thus, their interests and concerns frequently parallel their counterparts abroad. Speaking with a community service worker at a Chinese immigration services centre in Scarborough, Regnier-Davies (2015) affirmed that one of the biggest (and in many cases, exclusive) food concerns for new immigrants is around food safety. Also, she agreed that within the Chinese immigrant community that she encounters, concepts such as food sovereignty are relatively new and unfamiliar. Furthermore, she attests to the need for more educational efforts to illustrate the interconnection between farmland/farmer livelihood preservation and the availability of safe, healthy and sustainable foods.

As a result, in the case that Western AFNs and related initiatives would like to connect with Chinese-Canadian citizens and gain support for initiatives around farmland preservation and/or supporting local

farmers, this mission may require strategies and messaging that differs from those typically used to connect with white, affluent consumers – the demographic that is most prevalent within the Western food movement. Examples of current initiatives for which this point may be especially relevant may be projects like the ‘World Crops Project’ (Chan, 2014), the Greenbelt Foundation’s “New Canadians Go Greenbelt!” promotional campaign (Clarke, 2015), and Vineland Research and Innovation Centre’s “Feeding Diversity” ethno-cultural crop trials (Vineland, 2015). For the projects just mentioned, given their goals to entice Chinese-Canadian consumers to further engage with AFNs and support local farmers and products, despite the general and culturally specific challenges discussed throughout this section, there are also some positive insights into Chinese food and consumer culture than can serve as leverage points for consumer engagement. Some potential leverage points may be found or developed in the following dimensions of Chinese relationships to AFNs, food, and culture:

- Out of the various Chinese AFN initiatives, many of which are similar to popular vehicles in Western AFNs, “rent a plot” (similar to community garden plots) programs have shown to embody the most potential to raise awareness about the multifunctional value of sustainable agriculture (Scott, 2014, Si et al, 2015). These programs have been a success for families with children, seniors, and as a burgeoning novelty recreational activity (Scott, 2014, Si et al, 2015). Thus, there may be potential for community garden programs to similarly appeal to Chinese-Canadians. In fact, Regnier-Davies (2015) described the ways in which gardening programs at her immigrant services centre have improved the perception of mainland Chinese immigrants by Hong Kong immigrants, as the chance to garden together has given Hong Kong immigrants an opportunity to appreciate the vast farming knowledge and skill sets possessed by many mainland immigrants from farming backgrounds.
- In both China and Hong Kong, ‘wet’ markets (Si, 2015, 311; Wang, 2015, 4-5) continue to proliferate, where shoppers can purchase on a daily basis from individual vendors selling anything from live fish and meats to fresh or dried produce. While the vendors are not necessarily selling their own products, wet markets facilitate a way of shopping based on one-on-one interactions and the development of individual trust. As a result, this may give venues such as Western farmers’ markets a familiar appeal to Chinese-Canadians. However, from my interaction with the Chinese community, I am aware of the fact that farmers’ markets are also perceived as ‘white spaces’ (Alkon & McCullen, 2011). Thus, there are cultural barriers to

overcome and the real issue of how to diversify the range of producers and products at farmers' markets needs to be addressed.

- Lastly, while there is a need to expand consumers' concerns beyond just food safety and health, the high prioritization of health in recognition of its direct connection to diet and traditional foods within Chinese culture is something that may be harnessed by AFNs. Given that it is a traditional Chinese belief that food is sacred (Si et al, 2015, 303), and given that seasonal eating is already a fundamental component of traditional Chinese nutrition and Chinese medicine principles and practices, there is a strong potential for AFNs to better connect with Chinese-Canadians upon this common ground in health-related values. The framework of 'health' can be used to promote and make the connection between healthy farmland, farmers, and healthy fresh and seasonal foods.

In closing, the relatively nascent nature of Chinese AFNs and the distinct socio-political-economic contexts of China and Hong Kong present the study of Chinese AFNs as an interesting one. Given the large percentage of Chinese immigrants who are both long established and recent in many of Canada's major urban centers like Toronto and Vancouver from both China and Hong Kong, it is potentially worthwhile to consider how cultural, social, political and economic experiences and values from abroad translate amongst Chinese-Canadians. From my own farming experiences, including interactions with market customers, as well as other new growers and food movement actors from both Toronto and Vancouver, it is a repeated observation that a) AFNs continue to remain on the fringe/periphery of Chinese mainstream culture in both Asia and Canada, but that b) there is an interest, though nascent, in sustainable agriculture and its products from the production as well as the demand side. However, there remains a significant gap in supply, and on the surface, demand appears relatively fragmented and perhaps too localized to substantiate a critical mass in demand that is enough to convince producers to adopt new 'world crops' production, nevertheless scaling up and out tried and tested 'world crop' varieties. Therefore, to pinpoint the 'tipping point' of this question, as in, to identify when and how this movement may or may not flourish amongst ethnic communities like the Chinese community in regions like the GTA, is an answer that continues to remain elusive. However, a potentially helpful observation to be taken from Si et al. (2015) is that one of the challenges facing Chinese AFNs is that most of its initiatives such as CSAs and farmers' markets are concepts and models adopted primarily from Western food movements (311). Si et al. suggest that it is this *importation* of 'solutions' from an external context, rather than the development of "endogenous initiatives" (311) is partially the reason for the weakness

and challenges of these strategies in a Chinese context, as Chinese AFNs are confronted with the complex struggle to adapt these strategies to socio-political contexts which are significantly different from their Western origins (Si et al., 2015, 311). Thus, in the context of the local food movement in Toronto and current initiatives desiring to engage ethno-cultural communities, perhaps a similar lesson needs to be taken, one which cautions against the danger of ‘universalizing’ or ‘homogenizing’ the interpretations of all too familiar terms such as ‘alternative’ and ‘trust’; and also, the need for socio-political-economic nuances of a community and deriving ‘embedded’ solutions from such spaces.

7.0.2 Chinese-Canadians and the Food Movement in Canada

Based on this brief overview and characterization of Chinese AFNs in China and Hong Kong, and possible ways to improve the food movement’s engagement with the Chinese community, I would like to further expand on the findings in the last section with some insights gathered from interviews with Regnier-Davies and Huang, both of whom work closely with Chinese communities in Toronto and Vancouver. Some of Regnier-Davies’ insights have already been mentioned in the last section. Regnier-Davies is a staff at the Centre for Immigrant and Community Services (CICS) in Scarborough Toronto, and Huang is the co-founder of the Hua Foundation based in Vancouver. Through Regnier-Davies’ role as a food and gardening programs coordinator and facilitator at CICS for the past 3 years, she has had the chance to work closely with new immigrants from mainland China and Hong Kong, as well as Iran, Syria, Pakistan, India, the Philippines, and Taiwan. For Huang, the mission of the Hua foundation, a Chinese youth-led and youth-focused non-profit, is to support “Chinese-Canadian youth to participate in social and environmental change” in their communities by “connecting shared values, diverse culture, and rich heritage” (Hua Foundation, n.d.). For Hua, they advocate for and support civic engagement in a range of social issues, but since its founding, food has served as one of its primary platforms and vehicles for engaging the Chinese community in broader issues such as food and social justice.

This main goal of this section is to elaborate on and complement the general discussions in the last section with more specific examples from work that is currently underway in Toronto and Vancouver. Also, additional themes specific to a Canadian context will be address. From my interviews with both Regnier-Davies and Huang, I learned about their tangible successes, their practical challenges, as well as their more philosophical or conceptual perspectives on themes/issues such as diversity and accessibility in relation to the food movement. In listening to them, many of the dominant themes and issues within existing literature echoed in their stories, their first-hand experiences paralleling and illustrating theory.

Furthermore, many common threads were found between their experiences and my own, based on my experience as a member of the Chinese community, a farmer of colour in Toronto of the last few years, and a person of colour active within Toronto's food movement.

Interest in local and organic world crops

In recent consumer and marketing studies, there has been repeated mention of the potential to engage the Chinese community with respect to local food. On the production end of the spectrum, established Chinese farmers and a solid Chinese food distribution network is deemed well suited for the integration of more local products. On the consumption side, studies have indicated that there is a strong and growing interest in organic produce in the Chinese community (Filson et al., 2010; Hadrer et al., 2010). While these conclusions are helpful as a broad guide for further research, further research is indeed necessary if we want a more nuanced understanding of the nature of this demand, including its strengths, its limits and its potential contradictions. To this, Regnier-Davies' experiences and observations from her work at CICS are a good starting point and warrant some consideration. In the last section regarding Chinese AFNs and the main drivers behind Chinese consumers' interest in organics, concerns about food safety was one of the top reasons. And as mentioned, Regnier-Davies has observed a similar phenomenon. From her interactions with community members, she affirms that much of these concerns come from the prevalence of public food scandals in China in recent years, whether participants experienced these incidences first-hand or simply heard about them. As a result, amongst community members, Regnier-Davies observes a strong interest in topics such as GMOs, consistent interest and inquiries about the source and the producers of the food that is sold at their "good food markets", and interestingly, amongst their many food programs, their Safe Food Handling certificate course is one of the most popular. Even though this course is intended for food industry employees and professionals, there is significant enrolment in this course because of community members' personal interest in safe food handling skills for home application, primarily based on concerns about food borne illnesses (Regnier-Davies, 2016). Generally, Regnier-Davies agrees that China's food safety scandals have instilled in Chinese consumers a vigilant concern about the 'safeness' of their food, and a general distrust towards produce and food products from Mainland China. In some ways, this can be an advantage for the promotion of local produce, since Regnier-Davies affirms that food from Canada is trusted. However, what can be clarified is whether this trust is specific to Canada, or just any producing country *other* than China.

However, an interest in local products alone is not enough to build a strong local food system and is not necessarily synonymous with an interest or concern for producers or effecting systemic change. To deepen the interest in local products *and* local food systems, there are still significant factors and challenges to address. One key issue is pricing. In existing literature, immigrant or ‘ethnic’ communities are consistently described as particularly price sensitive. While Regnier-Davies and Huang affirm this generalization, it is more important to understand why this is so. In many cases, this price sensitivity is less the result of a disinterest in paying more for local or organic, but an inability to do so, especially for immigrants who may face extra financial expenses and pressures associated with the immigration and settlement process. Thus, pricing may be a barrier to access.

Other barriers to access, which result in lost opportunities for further engagement, education, and promotion around local food are issues such as language, cultural appropriateness and geography. In the food movement, various products and media are used for initiating, engaging and facilitating discussions about our food system. This ‘media’ includes educational and promotional material in various print and digital forms, workshops, spaces such as farmers’ markets, movie screenings, local food festivals, conferences, etc. However, at the current moment, these materials are often only available in English, thus creating a language barrier; products and spaces lack diversity - there is often little that reflects the tastes, preferences, cultures, voices, faces, and issues of communities of colour; and finally, even geographically speaking, food movement venues, activities and events tend to bypass neighbourhoods with large concentrations of communities of colour and marginalized communities. While these barriers seem obvious, their existence and the failure to address them are often a normative part of food movement processes and spaces. In contrast to this, small changes can have a significant impact in terms of making products and spaces more relevant to a greater diversity of communities and thus engage a more diverse audience. For example, Regnier-Davies notes that at the CICS “good food” markets, Chinese vegetables will be the first to sell out, and customers tend to engage more with vendors and their produce if the vendors are Chinese and if there is Chinese signage.

Chinese-Canadians and local farmers

Despite the potential growing interest in organic and local products, the question of whether an interest in supporting local farmers and a local food *system* remains; whether there is a genuine valuing of environmental and sustainable agricultural work; and whether there is a recognition of the connection between this work and the *availability* of local and organic products. To this, the answer is less clear and

complex. Based on the observations made by Regnier-Davies and Huang, as well as from my own experience, I would describe the connection between 1) an appreciation and valuing of organic products, and 2) the appreciation or recognition of sustainability work as what *enables* the existence and availability of these products, to be a somewhat disjointed one. Examples of this disconnect between an interest in sustainable products versus other elements of the food movement can be observed in the complex perception towards farmers and environmental activism work.

Perceptions of farmers and farm work

As mentioned in the Chinese AFNs section, farmers or peasants can potentially be viewed as ‘backwards’ or ‘anti-modern’, in contrast to the romanticizing and valorizing of farmers in the recent food movement. Also, the complex knowledge and skills of farming and farmers are generally underestimated, with food growing often being perceived as inferior work (Regnier-Davies, 2016). Furthermore, there is the added layer of negative association towards farmers, especially farmers from Mainland China, as mentioned in the previous section. All of this culminates in a negative view of farmers and farm work. Fortunately, in recent years, Regnier-Davies has observed improvements in the relations between the Hong Kong Chinese and the Mainland Chinese, as the appreciation for the knowledge and skills of those who come from rural farming backgrounds in China has increasingly improved. However, the majority of participants still see “toiling in the sun” and “getting one’s hands dirty” to be the work of peasants, the work of a lower class, this is also associated with the perception of rural people being uneducated (Regnier-Davies, 2016). As a result, the popularity of CICS’s cooking classes generally outweighs the interest in its gardening programs. This example is just one to illustrate how strategies and programming that are common to the Western food movement may need to be re-evaluated or re-strategized within specific cultural contexts.

Politicizing the Chinese community

This last point that cautions against universalizing the values, assumptions and strategies within the Western food movement can be linked to the discussion about broadening the definition of “alternativeness” within Chinese AFNs; and related to this, the challenges in politicizing a community that has been conditioned under more politically oppressive environments than those in Canada. From Regnier-Davies’ perspective, she affirms what was discussed in the last section:

“At the risk of maybe generalizing a little bit too broadly, I think a lot of the ‘apolitical’ behavior has a lot to do with the culture of politics within China—it influences how people think and see the world. The Chinese political system is very top-down, and it is not socially acceptable to protest or ‘make trouble’—I find that this culture of avoiding conflict is very common here in the Scarborough Chinese community too, and I think it influences people in how they relate to other aspects of their life—including food” (Regnier-Davies, 2016).

Further examples of this include a recent GMO discussion panel at CICS with a mostly new Chinese immigrant audience. While there was a very strong interest in how one can avoid GMOs in her/his food purchasing and personal diet, there was relatively little interest in other ways to take action against GMOs such as partaking in community organizing, protests, etc (Regnier-Davies, 2016). Thus it remains a challenge to engage communities like the Chinese community in other forms of activism beyond market-based methods such as simply buying local and organic.

In spite of everything that has been mentioned so far, including the tension or disconnect between an interest in sustainable products versus an interest in sustainable work, and the tendency towards more market based solutions over more politicized forms of activism, Regnier-Davies warns against perceiving the Chinese community as simply “passive consumers” (Regnier-Davies, 2016). Rather, it should be noted that individual communities can share similar values, but they may practice or express these values in ways that appear to be very different from one another on the surface. From her perspective, she sees many practices and characteristics within the Chinese community that reflect elements of food sovereignty principles, it may just not be labeled as such:

“... there is a lot of home growing, home cooking, and generally, food-skills are quite high in the Chinese community in Scarborough. In a way, I would argue that my Chinese clients are deeply connected with the concept of food sovereignty, they just haven’t given it that title, nor have they made it political—but I think there is an understanding that the environment around them is directly connected with health and well-being, and that food is an important aspect of that. They want the ability to be able to make the decisions about the types of food they have access to” (Regnier-Davies, 2016).

In summarizing the issues discussed so far, and to relate these various topics into a broader theoretical discussion, I would argue that many of the challenges discussed so far and their potential solutions may lie in actively recognizing, and *countering* any tendencies to homogenize the experiences and challenges of different ethnic or cultural groups within the food movement. Within food movement discourses, this process of homogenization and its outcome is what some describe as the “whiteness” of the food movement (Guthman, 2011), whereby the values and ways of the dominant culture are ‘universalized’ or ‘normalized’, thus erasing the unique and specific experiences of minority groups. Furthermore, by reading or evaluating culturally specific issues exclusively through the ‘dominant’ lens, there is also the risk or tendency to offer solutions using strategies, tactics or modalities that are often ineffective due to their lack of cultural awareness and consequently, their cultural inappropriateness. This ineffectiveness or cultural inappropriateness can also be linked to an effect whereby communities lack a sense of connection, ownership and agency in the solutions proposed, thus creating a barrier to deepening a community’s engagement and investment.

To avoid this process of universalization and homogenization, what is required is the need to examine ethnic communities in a way that is specific and traces their cultural or political roots. In reality, this may mean “meeting people where they are at” (Huang, 2016) and focusing on a “for us, by us” (Huang, 2016) approach to community engagement and solutions development. Given the more nuanced insights that have been gained so far, the following are some more concrete examples of factors that have shaped the character of certain Chinese communities, all of which are important considerations for food movement actors:

- Recognizing that first generation immigrants may not have had the same exposure or opportunities to engage with conversations around sustainability, especially those that take place within food movement events, materials, or dialogues. For example, before attempting to engage communities in actions such as organizing and protesting, there may be preliminary steps required – such as increasing opportunities for conversation and education. This may involve creating engagement tools that are accessible to the Chinese community by way of language and culturally appropriate content. Another example may be the scenario of promoting CSAs, a distribution model that is common within the Western food movement, but one that may be too unfamiliar for communities like the Chinese. Furthermore, models such as CSAs may not be effective because they might not meet the social needs that are satisfied through other modes of shopping common amongst immigrant communities. For example, the routine of family weekend

shopping trips to ethnic grocery stores (Wang & Lo, 2007; Lo, 2009). Studies like Lo's (2007, 2009) have identified that this family style of shopping was more common amongst communities of colour, and that visits to ethnic grocery stores were one of the ways new immigrants connect to their broader community. Also, the experience of being surrounded by familiar sights, smells, and sounds (language) offered a sense of belonging (Wang & Lo, 2007; Lo, 2009). Thus, perhaps distribution models that would also offer these social opportunities would be more accessible and effective.

- Developing sustainability education material and events that are also culturally relevant or appropriate in their content. For example, more nuanced understandings about the food and traditions of individual cultures can inform minor adjustments that may improve content relevance significantly. For example, raw greens salads or uncooked vegetables are less common to Chinese cuisine compared to Western cuisine, and there are stronger preferences for fermented or cooked vegetables. Thus, instead of workshops with popular topics like sprouting or indoor salad growing, themes such as vegetable fermentation, vegetable drying (dried vegetables such as bok choy are commonly used in Chinese soups), or dumpling making can be more accessible platforms that meet cultural food interests as well as food movement goals for community engagement. Examples of this blending of sustainability and culture can be found in projects by the Hua Foundation, projects like "The Choi Project", their "Seasonal Choi Guide", "Shark Truth", and their "Cooking Wontons with G-Ma" workshop and video (Hua Foundation, n.d.). Furthermore, connecting to culturally appropriate foods and traditions can showcase principles of sustainability that may be inherent to Chinese culture. Claudia Li, the other co-founder of the Hua Foundation, emphasizes an important need to challenge the perception of environmentalism as "a Westernized or white concept" and instead, showcase the ways in which "environmentalism and sustainability is really within the traditions of Hua culture" (note) (Hua Foundation, 2014). Seeing environmental values as an integral part of one's own heritage may make sustainability messages resonate more deeply; help increase people's understanding and connection; and inspire more genuine interest and concern. This authentic and deep concern is what I think is necessary to inspire people to take action and for truly "embedded" solutions to arise from within a community, solutions in which people feel a sense of ownership and agency (Huang, 2016; Regnier-Davies, 2016).
- Lastly, it needs to be recognized that the ability to partake in the food movement is much more easily facilitated if one is in a position of privilege. This privilege may take various forms, i.e. granted through one's belonging to the dominant culture or ethnic group, through one's ability to

speak and read English (in the case of Canada), through one's geographical location within a city (i.e. living in neighbourhoods well serviced by amenities, alternative food markets, good transportation, community gardens etc.), and finally through one's socio-economic status, given that affording the time, space, and energy to garden, to travel extra distances to attend farmers' markets on a specific time each week, to afford organic produce, to have time and resources to prepare meals from scratch, etc. are practices that can be challenging to citizens with lower incomes or if they face additional financial, cultural or social barriers like those that newcomers are vulnerable to.

One final aspect of the Chinese immigrant community to be explored is the children/youth of the first immigrant generation, in other words, the children of the first generation. Given the view held by many that farming work is "unskilled", "inferior" and the work of lower class peasants, this, combined with what is commonly an intense pressure on the children of first generation immigrants to achieve top academic and professional success, results in an additional layer of intergenerational and intercultural conflicts that second generation immigrant youth may have to contend with if they desire to farm, partake in activism work, or pursue environmental or social justice based work that is often associated with the non-profit sector. I myself, as a second generation immigrant and as new farmer, can speak to this experience of trying to explain to my family why I am pursuing a vocation that is linked to a past that they intentionally abandoned, in hopes of finding 'better' opportunities for our family and myself. Financially, this parental concern and (sometimes) disapproval is understandable, given the financial challenges that face many farmers; and on a cultural level, Huang (2016) perceives the Chinese community's own disconnection to its agricultural roots and perhaps a lack of pride in it, is what contributes to this attitude. Thus, in Huang's perspective (2016), there is a need for the Chinese community to reconnect to its own agricultural history, to reclaim it, and for a sense of cultural pride to be re-established. Furthermore, there is a need to preserve Chinese traditional knowledge in order to preserve the lessons of sustainability that may be embedded in it. Vice versa, there is a need to recognize the link between environmental sustainability and the ability to continue practicing cultural traditions, such as maintaining the availability of culturally significant foods and ingredients.

Chinese-Canadian farmers and local supply chains: a neglected history, invisible stories

In earlier sections of this paper, it's been mentioned that Chinese farmers and their supply chains have been identified as being well positioned to engage with local world crops. However, it has also been

observed by studies like Aitken's (2014) that there is less interest from this community to diversify their procurement of local produce. Also, Aitken (2014) has also indicated that supply chains like those established with Chinese farmers and the network of Chinese grocery retailers tend to be "relational" supply chains that are strongly bonded via family or close personal relations. This can be a barrier for new entrants. Thus, this section will delve deeper into this supply chain to understand its background and dynamics, and where opportunities may exist for expanding local supply and distribution. On a theoretical level, exploration and presentation of information about the Chinese supply chain is an effort to include minority narratives into the dominant discourse, especially since so little is known about this supply chain that has existed outside of the mainstream food system in Canada since the 1800s (Gibb & Wittman, 2012). But despite this, the Chinese supply chain and its member enterprises exists a "shadow economy" (Huang, 2016), referring to its invisibility to the dominant community. Thus, bringing this history to attention within the broader world crops discussion is also relevant for acknowledging existing world crops supply chains and learning from them.

As mentioned, very little information and research exists about this aspect of Canada and Ontario's agricultural sector. To preface, in this section, what little information exists and is presented mainly pertains to the Chinese network in British Columbia, while nothing could be found with respect to Ontario's Chinese history through my research. This in and of itself is an issue that needs to be addressed, given the prominence of this sector, the number of jobs that are implicated in this sector, and the contribution of this sector to the Canadian economy (Huang, 2016). However, one potential reason why the Chinese supply chain is a somewhat insular one, one that is strongly guarded by a cautious and protectionist culture (Huang, 2016), may be due to the fact that much of this supply chain came into establishment as a result of and as a survival response to systematic racism, discrimination, and exclusion on the part of governmental policies since the 1800s (Gibb & Wittman, 2012). As a result, Chinese farmers and merchants struggled to build their own systems of production and distribution chains in order to survive, and this history plays a significant role in shaping the insular nature of interpersonal and business relations within the Chinese community. Within the Chinese community some relations are based on decades (up to 20 to 30 years) of personal connections and trust building (Huang, 2016). Also, this trust is often granted more so on an individual basis rather than to institutions or organizations as a whole, thus indicating that institutional trust, especially towards government and non-Chinese institutions, are generally quite low (Huang, 2016).

There are both advantages and disadvantages to this insular and tightknit quality of the Chinese community and its supply chain. On one hand, this has enabled the Chinese community to build what Gibb and Wittman (2012) terms a parallel food system, one that parallels the dominant food system in Canada. In fact, Gibb and Wittman point out that this “parallel” system can be seen as one of the first alternative local food systems to be established in Canada, prior to the official naming of such by the current food system. Additionally, given that exclusion from the dominant system has always been a factor in the formation and the development of the Chinese supply chain (at least the system in British Columbia), the ability to survive without dependence on the dominant system has always been an element that has shaped the way in which this system operates. This is a strong and successful character of the Chinese food system in BC and there can be lessons learned here. Especially, as Gibb and Wittman (2012) highlights, many of the Chinese farmers and farm operations in BC are the few examples of farm businesses that 1) pay their workers a minimum wage, and 2) have been able to sustain their livelihoods from on-farm profits alone, without supplementing income from off-farm sources (14). These goals are often ideals that many farm (both conventional and ecological) strive for, but few have been able to achieve.

The disadvantage of this insular quality is that new entrant farmers or food movement actors who want to engage the Chinese community have difficulty “breaking into” the network. While it is not impossible, the process of being accepted and trusted by the community can be a long one, and one that often takes place on an individual and personal level. Furthermore, the initial opportunity to connect with key community members may be presented ways that are informal and somewhat codified by social/cultural cues that are subtle and possibly unknown to those outside of the community. Seemingly insignificant events may in fact be rare opportunities to interact with key players in the community, and these opportunities may be easily missed if such cultural “cues” are recognized. For example, Huang (2016) explains that if one is invited to ‘dim sum’³, it is an opportunity not to pass up as ‘informal’ invitations such as these may be a community member’s way of “checking you out”. And often, such invitations are rare and one-time occurrences. To reiterate, due to the institutional distrust that the Chinese community may have towards outsiders of their community, “breaking into” ethnic markets not only require a long

³ ‘Dim sum’ is a traditional Chinese breakfast/brunch/lunch meal that comprises of many small bite-sized foods that are most commonly steamed in bamboo steamers or deep fried. Common dishes include dumplings, buns, and a range of small bite size meat dishes. This style of Chinese cuisine is particularly popular with Cantonese Chinese and is a routine breakfast/lunch tradition for many people, similar to the cultural norm of “going for brunch” for Westerners. Dim sum is meant to be a leisurely meal that is also often an opportunity for socializing.

process of personal trust building, but there needs to be strong participation and representation from members from the Chinese community to help build this trust.

Lastly, the importance of documenting culturally specific histories, like the Chinese farming community's history, is not only to preserve cultural heritage, but to also preserve existing community establishment and businesses, but demonstrating their historical and present contribution to Canadian society. For example, in my conversation with Huang (2016), the process of gentrification currently underway in Vancouver's Chinatown was discussed. While there are significant efforts being made by the community and on behalf of the community, including involvement from organizations like the Hua Foundation, Huang describes that it is challenging to make a case for the protection of existing businesses when formal documentation about an entire community's history and its contribution to the local economy is missing, thus his use of the terminology "a shadow economy". In a food movement context, losing cultural sites, and the people and products (such as food) associated with these sites, can decrease diversity in our communities. Furthermore, these sites, people, and products can all serve as potential access points or platforms for engaging community members. Losing these cultural touchstones can have significant ramifications for the preservation of diverse communities, as well as tools for diversifying the food conversation. Ultimately, diversity in food choices and the food movement cannot exist without diversity in culture, people, and even everyday spaces.

Conclusion

In closing, in order to expand the demand for local food and better engage the Chinese community in the local food movement, active efforts will be needed to diversify the local food movement. To do so will require significant work at the sociological, cultural, and educational level, beyond simply increasing the availability of local produce. In addition to diversifying products, what is really needed is a diversification of actors, voices and stories to be heard within the dominant food movement. Or better yet, for the Chinese community to develop its own food movement from within its own community(ies) and work alongside and in partnership with the dominant movement. Perhaps the question is not just whether we have access to more culturally appropriate foods, but whether there is access to a more culturally appropriate food movement. This would involve challenging the dominant narrative and ensuring that diverse narratives are present, heard and valued.

8.0 Theoretical Analyses and Discussion

To conclude this paper, this last section will discuss several theoretical frames relevant for analyzing the findings in this paper. The value in vetting the empirical data in this paper against broad theoretical frames is to clarify the core issues of the current world crops discussion and to understand their implications in today's food system context. Thus, in this section, I will outline each theoretical frame, connect them to the findings in this paper, and finish by, proposing questions and topics for future world crops related studies. Reflecting on the findings in this paper, the following theoretical frames seem particularly relevant: a Marxian analysis and food regime theory; an examination of the role of family farms and non-capitalist farms within the context of capitalism, and a food justice framework that includes both class-based and anti-racism analyses.

8.0.1 A Marxian Analysis and Food Regime Theory

Of the various frameworks to be discussed, I would argue that these two are the most crucial for the food movement in general, beyond the specific topic of world crops. This is because to understand the fundamental logic and inner workings of capitalism is to understand the underlying economic structure that drives our current corporate, neo-liberal food regime (Holt-Gimenez, 2015). Well articulated by Eric Holt-Gimenez, he points out that food movement work often focuses on “one or two specific components – such as healthy food access, market niches, urban agriculture, organic farming [...] rather than the system as a whole” (Holt-Gimenez, 2015, p23). All the while, “the structures that determine the context of these hopeful alternatives remain solidly under control of the rules and institutions of the corporate food regime” (Holt-Gimenez, 2015, p23). Furthermore, I would add that the corporate food regime and our current economic system consistently constrain the ability of food movement work to affect wide-spanning systemic change; whether this is manifested in the lack of access to farmland by new farmers, the challenge of farmers to make a living, the financial and social barriers to healthy food by marginalized communities, or the ability to enforce GMO labeling laws. Thus, Holt-Gimenez (2015) reminds us that *the work* of the food movement is to “understanding how capitalism functions [...] because changing the underlying structures of a capitalist food system is inconceivable without knowing how the system functions in the first place” (Holt-Gimenez, 2015, p.24). Despite the importance of this understanding, Holt-Gimenez also critiques that sadly, “critical knowledge of capitalism [...] has large disappeared from the lexicon of social change, precisely at a time when neoliberal capitalism is penetrating every aspect of

A. Cheng, 2016.

nature and society [...] and is exacerbating the intersectional oppressions of race, class, ethnicity, and gender” (Holt-Gimenez, 2015, p.24).

In agreement with critiques like Holt-Gimenez’s, I see the study of Marx and his seminal texts such as *Capital Vol. 1* as relevant to analyzing the food movement, given his renowned and meticulous analysis of Capital’s internal workings. While Marx’s key concepts are too numerous to discuss here, several key concepts are worth highlighting for the ways in which they can be exemplified in our current food regime and their relation to some of the world crops findings. Within Marx’s breakdown of Capital, several concepts are well illustrated in our current food system if we are to observe the trajectory of its development(s). One concept is that of ‘capital accumulation’ and the process of ‘concentration and centralization’ (Marx, 1867); whereby surplus value (profit) is the main goal of capitalist operations so that profit can be continuously re-invested to enable the expansion of existing operations. The logic of this growth is that economies of scale can be achieved, thus increasing production efficiency, and this, in combination with the exploitation of labour, can yield more profit for re-investment so that this cycle of ‘growth’ can continue. Furthermore, one of the tactics for sustaining ever-expanding growth is the need to eliminate competition, thus the process of ‘concentration and centralization’ takes place, referring to an *ever decreasing* number of people or corporations having *increasing* proportions of control over the means of production while accumulating *increasing* surplus value (Marx, 1867). In our current food system, the oligopolistic nature of the supermarket industry is one clear example of ever continuous cycles of capital accumulation, and concentration and centralization, whereby the insatiable need for growth and surplus/profit has led to the entrance of supermarkets in the banking industry (Burch & Lawrence, 2009) For Burch and Lawrence, this “financialisation” of our food system is one of the key processes behind the most recent evolution of our current food regime.

Another concept discussed by Marx is the critical need to exploit labour as well as nature in order for surplus value to be accrued within a capitalist production system. Again, while it is not possible to fully discuss the intricacies of this concept according to Marx’s explanation, the rudimentary nature of this process is that of getting maximum production efficiency and output while keeping wages and costs to a minimum. In the food system, we see this process in the exploitation of farm labour, the competitive ‘price squeeze’ that is imposed on primary producers especially, the use of biotechnology and mechanization, and the use of growing practices that aim to control the unpredictable elements of nature at the cost of causing irreversible environmental destruction.

As illustrated, much of how our current food system functions aligns with Marx's explanation Capital's logic and way of functioning. Marx's theories also illuminate why capitalism as an economic system is so powerful and difficult to challenge, given its uniqueness from previous forms of production and trade, historically speaking (Marx, 1867). Given all this, I will now briefly describe the links that I see between this Marx's theory and some of the more specific world crops findings in this paper. Primarily, I will use Marx's explanations of capitalism and food regime theory as a framework to reflect on the dominant world crops discourse, most of which was presented in the 'background context' section of this paper. To this point, my main critique of the dominant world crops discourse is that most of its main research conforms to the principles of the dominant food system and is strongly shaped by the very powers within the food system that the food movement seeks to challenge. This includes research primarily based in large-scale and conventional production methods and a concentration on distribution via dominant supermarket retailers. Meanwhile, there is relatively little focus on smaller scale ecological producers, or discussions about food access for marginalized communities and communities of colour from a food justice perspective, even though the foods and communities most directly implicated by this research are communities of colour. While increasing local production and decreasing reliance on imports is an important goal, along with the goals to boost and diversify local farmers' incomes, we have to be careful not to conflate "local" with "justice" (DuPuis & Goodman, 2005). In other words, while crop diversification may improve local farmers' incomes and local economies, crop diversification within the dominant paradigm does not necessarily shift current power dynamics that determine who has power and control over resources, whose interests are supported, and who benefits - at all stages of the supply chain.

Furthermore, regarding the conventional vegetable production sector, it is important to closely question to what degree crop diversification will improve the livelihood of local farmers, especially in the context of our dominant food system and its connection to declining farm incomes (Food Secure Canada, n.d.; Secombe, 2007). As mentioned by Aitken (2014), world crops distribution in Ontario exists in mainly a buyer-driven supply chain, meaning that price setting and negotiating power rests largely with supermarket retailers like Loblaws, Sobey's and Metro (132-133). Furthermore, in recent conversations with a Toronto food movement actor attempting to connect interested world crops buyers with local farmers, one of many reasons why farmers are interested in new crops is because they are looking for new supplier-buyer relationships, alternative to their existing ones within the industrial food system. Many of these farmers described feeling "squeezed", "constrained", and "like their hands are tied" (Kranenburg, 2016). Given stories like these, it is worth asking within the dominant paradigm, who will

benefit most from local world crops production, in the absence of significant challenges to the dominant food system. Will it really improve domestic farmers' incomes and livelihoods or will their price point be 'squeezed' by retail buyers just the same? Based on current demand, how much can 'local' enable the 'ask' for a premium price? But even if so, who benefits from this? Are consumers really willing to pay more for local? Who can afford to and what are the barriers to those who cannot? Which communities' dietary staples are being prioritized through current research? These are all questions that I think one should keep in mind when reflecting on the mainstream discourse.

Finally, in line with the concept of capital accumulation, partially facilitated by the process of 'concentration and centralization', the foray of supermarket oligopolists like Loblaw's into the 'ethnic' food market can be seen as an example of this process. Understanding the need for Capital to continuously accrue increasing surplus value, a need that drives Capital to seek out untapped niches or markets, and a need which compels capitalist operations to eliminate existing competition to allow for 'growth', it is important to ask what implications this has for the current world crops supply chain. As discussed in the findings, independent or small regional chains of ethnic supermarkets play a significant role in the current ethnic market. Thus, what implications does events like the purchasing of T&T by Loblaw's hold for existing small to mid-scale ethnic producers, wholesalers, distributors and retailer? From my personal experience as a member of Toronto Chinese immigrant community, I have already observed that a portion of my own family's household spending on ethnic produce is now divided between T&T and other independent stores that used to be their only source of Chinese products. The scale of T&T and the range of products it offers simply provide consumers with a 'one-stop shop' convenience that is hard to resist. Thus, changes like this in the current ethnic market is already allowing conglomerates like Loblaw's to divert existing consumer dollars away from smaller retailers. Again, understanding the need for Capital to ever expand, looking at examples like the acquisition of T&T, and considering the position of current world crops research within the dominant paradigm, crucial questions need to be asked as to who will benefit most from the goals of mainstream world crops research, and more importantly, who is included, who is excluded?

8.0.2 Small Farms, Non-Capitalist Farms, and Family Farms Within Capitalism

The second theoretical framework will explore the role of small-scale, family farms within the context of capitalism. This question is fundamental to one of the main tenets of the food movement, the one that advocates for the livelihoods of small farmers and farms, especially ecological/organic small farms.

Within theoretical discussions, the role of these small farms within capitalism is often examined and questioned, and engagement with these theoretical questions may help us to further examine the common perception of small farms and their existence as a symbol of resistance or challenge to the dominant food system (Bernstein, 2010). Amongst scholarly debates, many of which relate to “the agrarian question” (Kautsky, 1988), there is the suggestion that the persistence of small farms, family farms, the ‘peasantry’, and non-capitalist farms may aid the development of capitalism, that their existence may actually complementing the needs of Capital. This suggestion is important to examine, given its distinct opposition or contrast to one of the most common sentiments within the food movement. By engaging with this theory, hopefully a clearer understanding of the potential and limits of small-scale ecological farms within the current economic and dominant food system can be achieved. Furthermore, from my exploration of this theoretical framework, I found many of its key points relevant to the challenges of new farmers, newcomer farmers, and farmers of colour that have been discussed in this paper.

Similar to the last section, in which it was beyond the scope of this paper to fully elaborate on the breadth and depth of Marx’s concepts, the full intricacies of the ‘agrarian question’ and its related discussions are beyond the analytical capacity and scope of this paper. However, I will highlight some key ruminations on why and how small-scale, non-capitalist and family farms have persisted to exist, despite of the development of capitalism and Capital’s tendency to subsume as much of the means of production under its logic as possible. This refers to its logic of ever expanding growth, concentration and centralization of surplus value, and its tendency to transform the social relations within the means of production, one whereby people are dispossessed from their own means of subsistence, so that participation in wage labour becomes a necessary means to survival, and this wholly dependency on wage labour forces labourers with no choice but allow themselves to be exploited (Marx, 1867). Given all this, why have family farms continued to exist, rather than be subsumed and integrated into capitalism’s systems and modes of production?

One argument is that the existence of small farms actually benefits the dominant system by absorbing the risks and costs that capitalists farmers are unwilling to bear (Bernstein, 2010). One way that small farms are purported to benefit Capital is by absorbing the risks (and profit loss) that can come with working with the unpredictability of nature, as is often needed for primary production. Since Capital has yet to bring all elements of nature under its full control, despite of (bio)technological advances, farms that operate independently outside of Capital’s integrated production process take on the risks associated

with raw materials production. This relieves industry and actors in later stages of the production process of the risks associated with nature's unpredictability and the high risk for a loss of profit (Goodman & Redclift, 1985).

Another way that independent farms benefit capital is through the process of 'self-exploitation', a process that is common to many family farm operations. This concept of self-exploitation refers to the fact that many farmers do not or are not able to pay for their own labour. Their own personal wages are commonly sacrificed for the livelihood of the farm and to keep the farm competitive within the market system. This self exploitation via the withholding or reduction of one's own wages results in what is essentially free or extremely cheap labour for work that is generally intensive and sometimes dangerous. Again, for Capital, by allowing non-capitalist farms to exist independently, capitalist enterprises further down the supply chain can simply purchase the products of small farms rather than integrate the labour costs of primary production into its own production process. Thus allowing small producers to compete against one another to supply the cheapest commodities, and leaving the problem of sourcing and managing cheap labour to primary producers (Bernstein, 2010; Goodman & Redclift, 1985). To further theorize why farmers would subject themselves to self-exploitation and exploitation by others, one of Bernstein's (2010) thoughts on this is that many family farms continue their operations for reasons that are not just economical, but also cultural: "they often make considerable sacrifices to do so, because the land represents an element of security, and perhaps hope, in the "economic struggle for existence" (Chayanov, 1966) they confront, as well as a marker of *cultural value and identity* (emphasis added)" (p.109).

Taking all of this into consideration, it is certainly easy to question the food movement's tendency to herald or valorize small farmers as 'resistance' against the dominant food system. Given the way in which our current food system is both environmentally destructive and socially unjust, it is understandable to see how small farms can represent a positive alternative to the dominant, which they are – an 'alternative' that is, but this must not be conflated with their existence as a resistance or 'barrier' to capitalism's development. Perhaps a more accurate reading on why small farms have continued to exist is not necessarily because they have disrupted or prevented the developments of capitalist agriculture in any significant way, but rather their existence has been *tolerated* by the dominant system precisely because either: 1) they can "co-exist alongside industrial agriculture" (Alkon & Mares, 2012) *without* challenging it in any significant way; 2) Capital's encroachment has yet to expand into a particular untapped niches; or 3) the persistence of small farms may actually benefit the dominant system in some

cases. Furthermore, even family farms that appear to be independent or outside of the dominant system, seemingly able to 'opt out' of it, by using direct marketing strategies that allow them to develop relations with consumers based on values beyond monetary ones, even these strategies are eventually constrained by the dominant system in one way or another, sooner or later. In spite of strategies like direct marketing, farmers are still subjected to the competition from the large scale, industrial and corporatized organics industry (a symbol of Capital's co-optation of the values, aesthetics and products of a counterhegemonic movement), or aspects of their production may be controlled or affected by capitalist agriculture developments, i.e.: the cost of equipment, the spread of GMO seeds, the closure of small or medium scale processing facilities, just to give some examples.

Thus, small WC farmers are affected by capitalist agriculture and not separate from it. To add, they are "subject to the dynamics and compulsions of *commodification* (emphasis added)" (Bernstein, 2010, 102), another inherent trait of Capitalism that further exacerbates the competitive pressures of the capitalist system. This competitive pressure exists beyond the control of small farmers, they are forced to engage with it in one way or another, and they challenge the ability of small farms to sustain the livelihood of the farmers/labourers themselves. Sooner or later, some element of small farm operations is subjected to the forces of commodification, whether it is through their crop(s), their tools, the land or their labour. In the market place, the effect of commodity fetishism is often still at play (Marx, 1867), whereby products on the market are strongly valued by its cost, forcing small producers to compete against each other. And in the scenario where a small farmer either cannot or does not have to compete in the market place, she/he likely has to sell her/his labour in exchange for wages outside of the farm, i.e.: off-farm labour (Bernstein, 2010, 102-104). Under such forces, especially in the case where off-farm labour is a necessity to supplement farm income, there is the constant struggle to reproduce the means of production, including the producer her/himself. (Bernstein, CD, 102-104). In line with these theories on the role of small farms, this paper's discussions around the real challenges of small farmers, ecological farmers, new farmers, and farmers of colour illustrate how these theories play out in reality: the challenges of financial viability, insufficient farm income, lack of access to land, GMO contamination, competing against imports or corporate organics, etc.

To reflect on the theoretical frameworks discussed so far, we have discussed some of Marx's theories and how they explain aspects of the underlying economic system that drives our current food regime. This helps to illustrate the force of capitalism and the force of the dominant food system. In connection to this, I assessed the dominant world crops research discourse through a Marx- and food regime- influenced

framework. Based on this, given that existing research predominantly conforms with the production and distribution philosophies of the dominant food system, it is questionable to what degree the aspiration to diversify world crops production and markets will benefit farmers, both conventional and ecological, as well as communities of colour, those who are most directly implicated within world crops market research. Next, I highlighted debates about the role of small farmers and family farms within the context of capitalism, and the relevance of this framework for analyzing one of the main tenets of the food movement, which is, the advocacy for small farmers and particularly ecological farmers' livelihoods. More specifically, this body of theory postulates why capitalism, despite of its voracious nature, has allowed for the continual existence of small, non-capitalist, 'independent' family farms? How have these farms evaded subsumption by Capital? This theory also helps one to critically examine whether small farms really are symbols of resistance against the dominant food movement, a rhetoric and interpretation common to the rallying cry of the food movement.

8.0.3 Food Justice Analysis (1): Recognizing Class Differences

In the way that the theories described so far help to illustrate the workings of capitalism, this deeper understanding can help us better analyze food movements efforts and approaches, and more accurately recognize and differentiate between efforts that have greater potential for systemic and transformative change, over those simply offer alternatives to the dominant, without disrupting the current system, and in some cases, aid the dominant system. In discussions such as those by Holt-Gimenez and Shattuck (2011), these differentiations are characterized as "neoliberal", "reformist", "progressive", and/or "radical". In their view, one of the biggest and most common weaknesses of the food movement is the failure to recognize the presence of different class interests within the movement. Holt-Gimenez and Shattuck emphasize that it is critical for the class roots of different local initiatives to be identified because even though different class groups may share similar goals, different class and cultural positions will lean towards, and often require, different strategies to achieving their shared goals. Failure to recognize this class difference puts efforts and outcomes at risk of unintentionally supporting the very dominant system that they aim to challenge. Or, their benefits to the food movement may be severely limited and only granted to those in positions of power and privilege, usually those belonging to the dominant group. Thus, Holt-Gimenez and Shattuck offer the following conclusions and suggestions:

- To recognize that alliances between groups with similar class roots would build stronger and more 'durable' alliances.

- Create stronger same-class alliances, recognize common challenges, but also recognize that race, class, gender, religion etc results in differing levels of discrimination in the food system. This needs to be recognized within the movement and working strategies need to be developed and customized accordingly.
- Class and race inequities need to be addressed beyond the confines of the food movement

8.0.4 Food Justice Analysis (2): Race and the Food Movement

In line with these final suggestions and recommendations by Holt-Gimenez and Shattuck, and to further expand on them, this final theoretical analysis section will focus on analyzing world crops findings through a food justice and anti-racism framework. This frame is extremely important because as pointed out by Dupuis and Goodman (2005), we need to be careful not to conflate “local” with “justice”. As critiqued earlier, within current world crops discourse, there are relatively few conversations that link the issue of localizing world crops production and market expansion to the topic of food justice, or conversations about the farmers and eaters who are the most closely connected to world crops, this being communities of colour. More specifically, little attention has been paid to the challenges that they may face, outside of the context of food, challenges that have a direct effect on their ability to grow, purchase, or consume these foods. Unfortunately, this failure to recognize the varying levels and types of barriers that face racialized and marginalized communities is all too symptomatic of what Dupuis and Goodman (2005) call the “unreflexive” politics of the food movement, what Guthman (2011) labels as the “whiteness of alternative food”, and what Passidomo (2015) describes as the food movement’s “colourbliness”. To these points, I would agree with many of the authors and concede that addressing issues of food justice is synonymous to addressing institutional racism (Passidomo, 2014), since many of the social, political and financial barriers to food access go beyond the subject of food, and rather, they are related to power, privilege, and oppression.

The whiteness of the food movement

In drawing the links between race and the food movement, the critiques in this theme highlight the prevalence and dominance of white culture, values, practices and discourses within the food movement. This ‘unbearable whiteness of alternative food’, in the title words of Guthman, is described to be dangerously ubiquitous and significantly responsible for contributing to the movement’s racial and cultural exclusivity, as well as its inability to resonate with communities of

colour (Guthman, 2011). One of the processes that yields such effects is the normalization and universalization of white culture, values, practices, and discourses (Alkon & McCullen, 2011; Guthman, 2011). Critics observe how this 'whiteness' renders invisible the voices, experiences, and values of people of colour, while creating assumptions about the values and knowledge of people of colour. Critics conclude that the consequence of this 'colourblindness' (Brown et. al., 2003; Guthman, 2011; Holloway, 2000) is the exclusion of racial minorities within the food movement; a failure to address broad issues such as systematic racism, the failure to recognize the specific challenges of racialized and marginalized communities, and a failure to dedicate the resources necessary for addressing these challenges and countering systematic inequity.

Drawing specific observations and examples from the context of U.S. farmers' markets, scholars Alkon and McCullen (2011) describe two concepts that they label as "the white farm imaginary" and "the community imaginary" (p.938-939). The 'white farm imaginary' refers to the uncritical 'valorization' of (white) farmers or farm vendors (Alkon & McCullen, 2011). The perception of this 'valorization' to be an uncritical one stems from their observations of vendor-customer interactions at farmers' markets. Based on customer comments regarding their experience and motivations for shopping at farmers markets, Alkon and McCullen (2011) draw the conclusion that many customers felt that they were satisfying their desire to 'get to know their farmer' through their market interactions. However, the authors go on to point out, that particularly in the U.S. context, farm laborers of various ethnic minorities make up the efforts that go into food production. However, the dominant demographic of market vendors are white and often represent the farm owners, not the workers. Therefore, in Alkon and McCullen's opinion (2011), when we "heroicize farm owners rather than farm workers, we valorize the role of whites rather than people of colour. And in this way, prevents the discourse in the movement to address structural forces that creates our dominant food system" (p. 947). Additionally, by neglecting or masking the perspectives of people of colour, we allow the 'white farm imaginary' to perpetuate a romanticized and universal "agrarian narrative specific to whiteness" (Alkon & McCullen, 2011; Sackman, 2007). This includes overlooking the way that the white narrative ignores "native American displacement by white homesteader, enslavement of African American, the masses of underpaid Asian immigrants who worked California's first factory farms, and most Mexican farm laborers who harvest the majority of food grown in the U.S. (Alkon & McCullen, 2011; Guthman, 2008).

An example of this theme in the world crops discussion is the way in which "Chinese-Canadian farmers are virtually invisible in the educational, promotional, and policy documents created by mainstream local

food advocates” in Vancouver, despite of their long history of local food production there (Gibb & Wittman, 2012, 15). Examples of this exclusion include: a featured local food exhibit at the Museum of Vancouver in the fall of 2010, in which all of the local farmers featured were white – even though Chinese-Canadians make up nearly 20% of the population in Metro Vancouver, with many who have been and are active in the local food system (Gibb & Wittman, 2012, 13); *Harvested Here*, a book on the history of Metro Vancouver’s local food movement, does not include the contributions of Chinese-Canadian farmers to the local food system (Beers, 2010; Gibb & Wittman, 2012, 13); and lastly, amongst the 16 issues of *Edible Vancouver*, a local food magazine that has been in publication since 2008 and each issue celebrates stories of local farmers, “only one article featuring a farmer who appears to be of East Asian back-ground” (Fall 2010 issue) could be found (Gibb & Wittman, 2012, 13). In addition to this exclusion of Chinese agricultural history, in the discussion around the farmers of colour community at McVean farm (Sethuratnam, 2016), a similar sentiment was expressed by Sethuratnam, which is that newcomer farmers, immigrant farmers, and farmers of colour remain largely invisible to the dominant farming sector, both conventional and ecological. To the same point, there is little recognition and acknowledge of these farmers’ knowledge and skills, little efforts to extend custom assistance to support their unique challenges, and little efforts made to welcome them into the industry or community, to finds ways in which they can partake and contribute their valuable cultural insights and farming experience to the local sector (Guelph Wellington Local Immigration Partnership, 2013; Sethuratnam, 2016).

While the “white farm imaginary” examines sociology as it relates to farmers’ market vendors, and it can also apply to the representation of the “farming community” throughout the food movement, the “community imaginary” examines the cultural politics of farmers’ markets customers and visitors. With observations similar to those made regarding the ‘whiteness’ of market vendors and how this whiteness can mask issues related to race, Alkon and Mares (2012) observe the way in which farmers markets are predominantly occupied by white bodies. This white presence, in and of itself, codes these spaces as white. Kobayashi and Peake (2000) term this as a “racialized space” (Alkon & McCullen, 2011) that challenges the idea of farmers markets as culturally neutral spaces. This ‘racialized space’ can exclude people of colour, and experiences and perspectives outside of the ‘white norm’. In Alkon and McCullen’s farmers market case studies, they explain that “because customers at our market sites assume the market community to be proxy for the surrounding city community, the market creates a ‘community imaginary where the subjects are white, affluent and happy with food system alternatives, and potentially blinded from seeing food system problems

experience by others” (Alkon & McCullen, 2011). Consequently, this ‘community imaginary’ diminishes the potential of farmers markets to be spaces of critical engagement and empowerment, as currently, they mainly serve to reinforce the power of “liberal, affluent, and white identities and positionalities” (Alkon & McCullen, 2011). In relation to this paper, Regnier-Davies spoke to these same effect and barriers, which is that many Chinese community members do not attend existing farmers’ markets because they are not culturally accessible in terms of the culture of the space, which is dominated by primarily white consumers and products, as well as the fact that most farmers’ markets are not located in neighbourhoods with a concentration of Chinese residents (Regnier-Davies, 2016).

Lastly, to broaden the critical analysis of the food movement’s ‘whiteness’ and its effects beyond the farmers market context, the processes of ‘colourblindness’ and ‘universalism’ (Guthman, 2011) can be considered as a more general and overarching critique. Both terms refer to the normalization of white culture and values, accompanied by assumptions and judgement of cultures and values that do not adhere to this norm (Guthman, 2011). For Guthman, the codification of food movement spaces as white does not just happen through the presence of physical white bodies, but it is through the discourses and culture of the movement (Guthman, 2011).

Guthman describes colourblindness as form of violence that is inflicted based on “the assumption that values held primarily by white are normal and widely shared.” (Guthman, 2011). Furthermore, she goes on to say that “this erases differences in another way refusing to acknowledge the experience, aesthetics, and ideals of other, with the pernicious effect that those who do not conform to white ideals are justifiably marginalized (Guthman, 2011; Moore et al., 2003). One example is to reflect on the rhetorical and dogmatic sentiment behind popular food movements slogans such as: ‘know your food know your farmer’, ‘reconnect with the land’, and ‘get your hands in the soil’. Guthman (2011) points out the potential for these slogans to embody an element of ‘colourblindness’ and ‘universalism’, when they are applied with the assumptions that their appeal and historical associations are universal for groups of different race and class. But to highlight the falsity of this assumption, Guthman (2011) draws from examples of community feedback regarding programs such as community gardens and ‘good food’ distribution that were implemented in marginalized and racialised neighbourhoods in the U.S.

In these examples, coloured youth perceived organic food to be 'disgusting', 'gross' and 'dirty', while neighbourhood residents dismissed the produce from 'good food' trucks as "white food" or not "real food" (Guthman, 2011). For others, the notion of 'working in the field' and 'getting your hands dirty' conjured up the imagery of slaves in plantations rather than a sense of romantic, pastoral nostalgia (Guthman, 2011). Comparable examples from this paper would be: the way in which "toiling in the soil" (Regnier-Davies, 2016) is associated to the work of 'uneducated' peasants for many Chinese community members, a class status and lifestyle that may not be in the far distant past for some new immigrants and perhaps a past that some are eager to leave behind in their immigration to Canada; the association to organic food as only the availability of 'kale', 'swiss chard', and other "vegetables we don't know what to do with" (conversation with a family member, Cheng, 2016), and lastly, the ways in which many Chinese youth abhor at the idea of gardening outside, for fear of "darkening their skin" (Regnier-Davies, 2016), something that even their parents fear for or may disapprove of. This last point regarding skin colour is something that I have also personally experienced during my experience as a fulltime farmer and it is an interesting indication of the ways in which institutional racism subtly pervades our values, the way it exists as a constant undercurrent beneath the most superficial aspects of our lives.

All of the examples just discussed reveal the need for food activists to exercise greater critical reflection when questioning why the food movement fails to resonate with people of colour and whether it is partially attributed to its own presumptions about everything from food, to its cultural associations, to the modes of education that is employed in the food movement (Guthman, 2011). In conclusion, Guthman (2011) reminds us that "we need to understand much more about food practices (and histories) and not assume that people who shop for "industrial food" are any less knowledgeable or ethically driven. Additionally, she emphasizes that more understanding about class and race differences in foodways is needed (p. 277). While it is important for those who belong within the dominant culture to make space for marginalized communities, unfortunately it is also up to marginalized communities to reclaim and honour their narrative, and demand that space be made for their voices to be heard, and for the redistribution of power and privilege so that inclusivity and diversity is possible.

9.0 Conclusion

In closing, this paper has aimed to cover the wide breadth of existing world crops research that is mostly focused on the topic of expanding world crops production and markets in the Greater Toronto Area. To analyze this topic, existing ecological, agronomical, economical, supply chain, marketing, and social data was explored in order to get a full picture of the status of current research. Additionally, the wide exploration of existing research was also aimed to uncover any significant knowledge gaps and to identify what aspects of world crops research can be further explored in order to deepen our existing understanding. In this search, it was observed that information about organic or ecological production was significantly lacking, relative to the existing production data that mostly focuses on conventional agriculture methods. Additionally, little was known about the demographic or status of organic or ecological world crop growers and their associated supply chains. Thus, it was determined that this would be one knowledge gap that this paper would attempt to address. The rationale for this was primarily based on a food justice perspective, and the belief that given the context of the current food movement, the environmental challenges that face conventional agricultures (i.e. soil degradation, finite petroleum sources for fertilizers and pesticides, finite water resources), and the health concerns around pesticide consumption, the ecological sector is just as important in relation to world crops production as it is to the production of any other crops. Following the observation of the lack of ecological world crops data, it was also observed that among existing marketing research, much of the existing data was largely descriptive. What this means is that deeper explorations into the cultural, social or political histories for any particularly ethnic group was lacking. Thus, existing marketing profiles described the “what” but not the “why”. Thus, it was also determined that the second knowledge gap to address would be to explore one particular community’s deeper relations to food and farming, in search of factors that may influence their engagement with the food movement, and in association with this, their interest in local food, as well as their access and barriers to local, organic, and culturally appropriate world crops. The community that was chosen was the Chinese community in Toronto, based on my own ethnic background and my experience working with this community.

Having determined these two knowledge gaps, key findings from existing research was presented to provide a context for the new findings of this paper, those that would address the two gaps just identified. Among the existing research, Ontario’s existing world crops supply from both imports

and domestic production was outlined, key characteristics of existing supply and value chains were identified, and dominant ethnic community profiles were described. Some key findings from this included: the identification of three major categories of existing producers: 'traditional', 'professional', and 'local alternative'; the buyer-driven nature of existing world crops supply chains; the strong presence of relational value chains; the popularity of ethnic supermarkets as a source of world crops for consumers, and the high potential for developing local demand with the Chinese and South Asian communities. With some of the newer findings regarding organic or ecological production, small-scale and ecological growers, newcomer farmers, immigrant farmers and farmers of colour, and cultural insights into the Chinese community in Toronto, key findings included: the very nascent nature of ecological world crops research in Ontario, but that existing research is showing optimistic production results that are comparable to conventional data; the presence of a large concentration of newcomer farmers and farmers of colour at McVean; the many challenges faced by McVean farmers, the most prominent being: a lack of recognition towards their agricultural backgrounds during the immigration settlement process, their disconnection and 'invisibility' to the local farming sector both conventional and ecological, production challenges related to CSA implementation, and their various struggles sustaining viable farming operations beyond McVean; and with regards to the Chinese community and factors that affect their engagement with the food movement, food safety concerns abroad were found to influence Chinese-Canadians' food concerns here in Canada, their resistance to more political forms of food activism may be shaped by China's politically oppressive environment, and their engagement with or accessibility to the local food movement were significantly affected by cultural, language, and financial barriers.

Finally, to vet the empirical findings of the world crops discussion against broader theoretical analyses related to the food movement, the following theoretical literature was explored: Marx's theories on capitalism and its relation to food regime theory; "agrarian question" related discussions around the role of small, non-capitalist, and family farms within capitalism's development; and class-based and anti-racism analyses within a food justice framework. Ultimately, it was concluded that caution needs to be taken when assessing the ability for food movement initiatives and small-scale ecological to significantly challenge the dominant system, given the nature of capitalism to pursue continuous and infinite expansion under the logic of 'growth'. Thus, while small-scale ecological is certainly the type of agriculture that is needed, without challenging the broader economic system in which it exists, its transformative abilities will always be constrained and limited, with only those in privileged positions being able to enjoy its benefits.

Thus, this is why it is questionable to what degree the existing mainstream world crops will benefit farmers, conventional or ecological (especially ecological) and to what degree localized production can meet the needs of the majority of Toronto's marginalized communities and communities of colour, for whom world crops holds the most cultural significance. Within these marginalized communities and communities of colour, both producers and consumers are included, along with all actors of the supply chain in-between, and their challenges both within and outside of the context of food needs to be addressed if we truly want to improve the access to culturally appropriate foods for the broadest communities possible, not just a privileged few. Another way to put this is that this world crops research has only helped me to see the broader political, economical, social and cultural *outside* of the context of food that *directly* impact a community's access to food. Thus, if we want greater cultural diversity in local (world) crops, then there needs to be greater cultural diversity amongst our local farmers, our food movement actors, and our community representatives within the food movement. As mentioned before, perhaps the question is not just simply whether we have access to more culturally appropriate foods, but whether there is the availability and access to a more culturally appropriate food movement – and this would involve challenging the dominant narrative, and making sure that the narrative of minority communities is also heard and valued.

Appendices

Appendix 1: World Crops Research Timeline

1994	Agri-Food Canada quantifies ethnic markets
Early 2000s	University of Guelph & Ethno-Cultural Vegetables Ontario (ECVOntario) conducts Holland Marsh leafy greens production research
2007	Farmstart organizes 'Growing International' ethno-market conference
2008	Agri-food Canada conducts S.W.O.T. analysis of ethnic food sector in Ontario
2009 to 2016	Vineland Research and Innovation Centre begins production research on heat loving world crops
2009	Ontario Ministry of Agriculture, Food, and Rural Affairs (OMAFRA) publishes profiles of 30 'new' crops
2010	Farmstart and University of Guelph publishes ethno-cultural vegetables market reports series, Toronto Public Health and Toronto Food Policy Council in collaboration with Vineland launches Toronto Food Strategy
2011 to 2014	Vineland Research and Innovation Centre conducts marketing research
2011 to 2012	The World Crops Project and the STOP Community Food Centre launch Eat Local Taste Global project
2012	World Crops Project and Vineland expands support of urban learning gardens with free world crops seedlings. Toronto Food Policy council funds Farmstart's 'Growing International' Report
2014 to 2016	Trent University and Vineland partner in organic world crops production research

Citation: (Filson et al, 2010; Hadrer et al., 2010; Perkins & Walker, 2011; Toronto Food Policy Council et al., 2013; Vineland 2016)

Appendix 2: Interview Questions

Interview Questions for Sridharan Sethuratnam

General questions about McVean farmers

- 1) How many farmers were there at McVean farm, on average per season? How many farmers have come through the McVean program? How many years has McVean been in operation?
- 2) What was the average scale of production. For example, how many test croppers are on site each season, and how many other growers in addition to the test croppers, on average per season? What was the average or range of scales in production for non-test cropper farmers?
- 3) Generally, how much farming experience did most growers have prior to farming at McVean? For example, what percentage of farmers at the site had:
 - none
 - 1-3 years
 - 3-5 years
 - 5-10 years
 - 10+ years
 - previous experience mainly subsistence farming
 - previous experience involving commercial farming / farming for market
 - a combination of subsistence and commercial farming experience
- 4) What were the dominant nationalities, ethnicities and cultures represented amongst the McVean farming community?
- 5) What were some of the main reasons that drew McVean farmers to farming?
- 6) How did most farmers come to find out about the McVean program?
- 7) How did Farmstart do outreach to farmers? My sense is that the McVean site is host to one of the largest concentrations of 'farmers of colours', and newcomer or immigrant farmers in the SW Ontario region...would you say that this perception is accurate?
 - If not, how would you describe the range of farmers who farm at McVean?
 - If yes, did Farmstart design and implement particular outreach strategies to target this demographic and what were they? What were some of the successes and challenges of these strategies?

Production at McVean

- 1) After the test cropper stage, how many years could farmers lease land at McVean? What were the conditions of these land leases?
- 2) What percentage of farmers grew for market vs for personal consumption?
- 3) Were there annual production criteria that farmers had to meet and demonstrate to continue in the program? If so, what were these criteria, eg: minimum gross farm income, had to attend market, etc?
- 4) What were the main successes and challenges faced by farmers at McVean? In the following areas, were there any major recurring themes / patterns in the successes and challenges?
 - a. Knowledge and skills

- b. Production (labour, land management, crop management)
 - c. Distribution and marketing
 - d. Sales and farm income
 - e. Interaction with customers
 - f. Interaction with other farmers on-site, including farmstart staff
 - g. Interaction, engagement, connection with the broader ecological farmer community (eg: did many McVean farmers get involved with farm associations such as the EFAO, attend the GOC, etc.? Or – were they part of other farming networks outside of the mainstream ecological farming organizations like farmstart, EFAO, CRAFT, etc?)
- 5) What were some of the aspirations of McVean farmers? Did many farmers desire to continue farming and eventually continue their businesses beyond their time at McVean?
 - 6) What percentage of McVean farmers have been able to continue farming beyond their time at McVean and find a more permanent or expanded land base?
 - 7) What opportunities and challenges exist for farmers and their farm goals beyond their incubation at McVean?

World Crops

- 1) What percentage of McVean farmers produced ‘non-traditional’ vegetables / ‘world crops’ / ‘ethno-cultural vegetables’?
- 2) What were the main successes and challenges faced by farmers in their attempts to grow world crops? In the following areas, were there any major recurring themes / patterns in the successes and challenges?
 - a. Knowledge and skills
 - b. Production (sourcing specific seeds and equipment, labour, land management, crop management)
 - c. Distribution and marketing (did farmers try to market their world crops to a broad range of customers or did they market mainly to a specific ethnic community. How would farmers market their world crops?)
 - d. Sales and farm income
 - e. Interaction with customers
- 3) Given your background, experience and understanding researching world crops, especially market demand for world crops, what gaps and barriers are the most urgent and require attention? Be as specific as possible.
- 4) What are your recommendations for increasing the population of farmers of colours and newcomer farmers, and to better enable their capacity and chances of success?
- 5) What is your perspective on the current state of development with world crops research, production, and marketing – in relation to the current local food movement?
 - a. Do the necessary pre-conditions exist for this sector to expand in the near future? If not, what is needed. Or, if so, what are the most important ‘next steps’?
 - b. Does there need to be more or improved engagement and integration of newcomer farmers in the food movement? How might this be done or improved?
 - c. Are there challenges specific to farmers of colour or newcomer farmers that are absent from mainstream food movement dialogue that need to be prioritized? If so, what issues?

McVean Transition

- 1) What is the current status of the McVean farm project and what is the future direction of the McVean site/project?

- 2) What prompted the current changes to the site and project?
- 3) What are some of the future directions / trajectories / plans of the farmers who have been farming at McVean? For example:
 - a. How many will try to continue farming?
 - b. Is there support to help farmers transition out of McVean, from FarmStart or others? If so what support mechanisms are in place?
 - c. How many have established new farming plans and located new potential farm sites?
 - d. What are their major opportunities and barriers?
- 4) What have been the biggest lessons and insights from the McVean project, specific to the opportunities and challenges facing new farmers, farmers of colour, newcomer farmers, and world crops production?

What areas related to newcomer farmers and world crops production do you see to be the area with the most potential for possible change, and what are your recommendations for next steps?

Interview Questions for Lord Abbey

1. Can you briefly describe your background as a researcher and your current position at Dalhousie university
2. What are your current research projects related to 'world crops' or 'ethno-cultural' vegetables production in Canada. (Please refer to my research project description for details). Please describe in detail the focus and process for your world crops related research.
3. What specific crops are you researching?
4. Is your crop research focused on organic production?
5. What is the scope of your world crops research – primarily production? Or, does your research also cover the economical and marketing aspects of localizing ethnocultural vegetable production?
6. How many years have you been conducting this research?
7. What inspired the interest (both your personal interest and institutional interest) in this research on ethno-cultural vegetables?
8. Does your current research at Dalhousie involve any other institutional partners or partnerships with existing farms? If so, please describe the nature of this working / research relationship.
9. What knowledge do you hope to gain from your current research projects? What application do you envision for this knowledge?
10. What do you see to be the value of this research and its potential results?
11. Are you aware of the other world crops research happening in Canada, particularly the world crops production and marketing research in Ontario, involving Trent University and the Vineland Research and Innovation Centre? If so, what are your thoughts and perspectives on these initiatives? Do you see any major gaps that need to be addressed?
12. What are the major opportunities and challenges that you have identified in your world crops research thus far? Please describe in detail both the opportunities and challenges.
13. Do you foresee future growth in the area of **organic** ethno-cultural vegetables production in Canada, or within a specific region in Canada?
14. From your perspective, what are the major gaps in current research regarding world crops? If so, what are they and how should they be addressed?

Do you have any final comments regarding the current status of world crops research and production in Canada? What do you think are the most important next steps for expanding or improving world crops production, both nationally and regionally?

Interview Questions for Janelle Regnier-Davies

General background

- 1) Can you provide some more details about the demographic you work with at CICS.
 - a. Age range
 - b. Most common places of origin – country and specific regions
 - c. Professional backgrounds - do you ever come across newcomers with farming backgrounds who are interested in farming (professionally, for a living) after they arrive in Canada?
- 2) How long have you been at CICS and what is your current role and area of focus?
- 3) What is the range of food related programs currently offered at CICS?
- 4) Which programs have been the most popular?
- 5) Are there any programs or services being requested, or that you feel are needed, that are currently not in place?

Gardening and cooking programs

- 6) Can you describe participants' response to the gardening and cooking programs specifically...what has been the feedback? Can you elaborate more on the successes and challenges for this program so far?
- 7) How has the garden program evolved over time – what are some recent developments?
- 8) In past conversations, you've spoken about the relationship building between Hong Kong newcomers and mainland immigrants through the gardening program – how has this dynamic been developing or evolving over time? Do you think the garden experiences have significantly changed people's perceptions and valuing of farmers and farming?

Community engagement

- 9) In past conversations, we have discussed how local and sustainable food trends and attitudes from abroad carry over and are retained by many new immigrants even after they arrive here. This includes the prioritization of concerns over food safety and personal health and wellness, rather than significant concerns regarding broader food system issues such as farmer livelihoods and food sovereignty.... Are you still seeing this pattern through your work? Have you observed any changes over time as people become more exposed to alternative food movement initiatives here?
- 10) From my experience, and also as shown through existing research, Chinese consumers are characterized as being generally apolitical or conservative in their politics...have you found this to be true in your experience and what implications do you think this has for the Western local food movement if it wants to diversify and engage the Chinese community? Do you think concepts such as food sovereignty are seen as too radical or idealistic for the Chinese community?
- 11) What do you think would be effective strategies for engaging the Chinese community in broader discussions about the food system, to broaden their concerns and interests beyond the personal realm? What are the major success and challenges that you have encountered?
- 12) Are there any aspects of Chinese food culture, or aspects of new immigrants' concerns, interests, or attitudes about food that you think can be leveraged or used as an entry point to begin discussions about environmental sustainability, supporting farmers, or food security / food sovereignty? Or – based on the sensitivity to factors like price and freshness – do you think it'll be difficult to change attitudes as long as cheap and relatively fresh produce is easily available from supermarkets, etc.?
- 13) If domestically produced Asian vegetables were promoted, conventional or organic, do you think this would have an appeal to Chinese consumers? Would there be any differences in their level of trust towards domestically produced versus imported?

14) With food safety being a major concern, what would help newcomers build trust? Or what type of production, producers, and products *do* they trust? Eg: would they trust produce from the supermarket over buying direct from farmers at a farmers' market? What do people think of the label 'organics'?

Moving forward

What do you think are the most important next steps in working with the Chinese immigrant community and food? What do you see as priority next steps or key challenges to tackle? What issues should be prioritized and addressed within the local food movement, in relation to the immigrant experience and food...

Interview Questions for Hua Foundation / Kevin Huang

Your broader mission

1. With regards to your broader mission to encourage and support youth who want to engage in social and environmental justice issues, what has that experience been like? Have you come across any challenges that are unique to Chinese youth, given the context of having immigrant parents and how this might lead to a lot of external, as well as internalized pressure to 'succeed' professionally, financially, etc...?

Your "Choi project"

2. What were some of your key considerations when you were developing this project, in terms of thinking about the best way to engage the broader Chinese community in sustainability issues.
3. Is there a particular sector of the Chinese community that is more receptive to your message? For example, have you noticed any patterns amongst, say, new immigrants vs long time settled Chinese-Canadians, a particular age group(s), Hong Kong Chinese, Mainland Chinese or those from a specific region of China, a particular socio-economical class, etc.?

Your 'Choi' guides and the promotion of local vegetables in Chinatown supermarkets

4. What has been the feedback and reception of Chinese consumers to your 'support local' campaign?
5. What is the level of demand for local, as well as organic vegetables amongst Chinese consumers?
6. What are Chinese consumers' biggest concerns and interests when it comes to local and organic produce? In other words, what is driving their interest or concerns? (eg: GMOs, food safety, freshness, price, etc.)
7. Again, what major opportunities and challenges have you encountered in working with the Chinese community around issues of sustainability?
8. For the supermarkets partnering with this project, have they faced any major challenges in sourcing local and organics for their customers? What does the supply chain for Chinatown supermarkets look like?
9. What has been their experience participating in this project? What are the major opportunities and challenges for them? (For example, could a potential advantage or opportunity be using the tradition of seasonal eating in Chinese cuisine, especially around Chinese holidays, to encourage buying seasonally and locally? But perhaps a disadvantage would be consumers' sensitivity to pricing or lack of interest in local and organics altogether?)

Conceptual questions based on my existing research

10. How do you think the Chinese community perceives farmers and the culture of farming in general? In my research of the food movement in China and HK so far, some studies show that consumers perceive farmers mostly in a negative light – seeing them as “backwards”, “anti-modernization”, “dirty”, and in some ways, farmers are almost “vilified”... Have you come across this perception or attitude in your work?
11. In some studies, Chinese consumers are described as stereotypically apolitical or only interested in local and organic food for reasons related to personal health and safety, but less interested in supporting farmers or the concept of food sovereignty – what are your thoughts on this? Do you agree with these generalizations? What has been your experience with the Chinese community?
12. Why do you think there is a disproportionately low representation of Chinese-Canadians in the sustainability and environmental justice sector?
13. Similarly, why do you think there has been little intersection/cross pollination between the alternative food movement and the Chinese community? Why do you think the movement has been slow to catch on with the Chinese community, in mainstream Chinese culture?

14. What progress (whether it is changes in attitudes, more engagement and participation) have you observed over the years and what remains to be major challenges? What do you see as being the most important next steps to affect change within the Chinese community and with regards to building interests in sustainability issues?

Appendix 3: Immigration Statistics

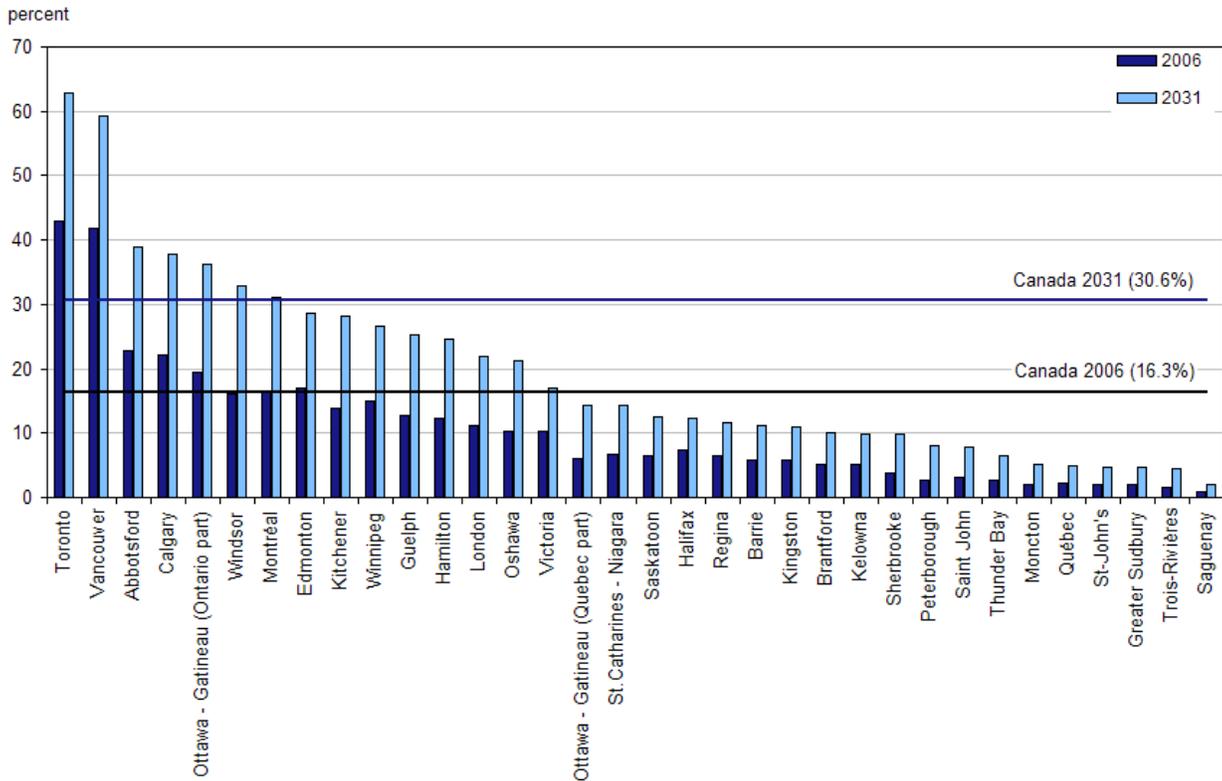


Figure 1. Proportion of the population belonging to a visible minority group by census metropolitan area, 2006 and 2031 (projected). Source: Statistics Canada, Demography Division.

Citation: (Toronto Food Policy Council, 2013, 5)

Appendix 4: Descriptions of Key Actors and Organizations in World Crops Research

Vineland Research and Innovation Centre: “The Vineland Research and Innovation Centre (‘Vineland’) is a world-class research centre dedicated to horticultural science and innovation. Located in Canada’s Niagara Region, Vineland’s mission is to deliver innovative product and production solutions that address the needs of the horticulture industry and advance Canada’s research and commercialization agenda. Since 2009, Vineland has implemented a world crops program that investigates the opportunities for producing, commercializing, and developing consumer demand and market potential for ethno-cultural vegetables. Vineland’s goal is to support local farmers to transition to new and possibly more lucrative markets for culturally specific vegetables that are proven to thrive here in Ontario. Vineland has become a hub for much of the research and farmer engagement around world crops – particularly South Asian and Caribbean crops. Vineland’s production and consumer research will be integral to the process of forming and implementing a world crop marketing strategy” (Toronto Food Policy Council, 2013, 2-3)

Toronto Public Health: “Toronto Public Health’s (TPH) mission is to reduce health inequalities and improve the health of the whole population. TPH provides services to individuals and communities, and advocates for public policies that make our city healthier. The Toronto Food Strategy team was launched in 2010 to implement Toronto’s food strategy and work towards a health-focused food system. Key projects include: food access mapping which has identified gaps in food access for Toronto’s most vulnerable populations; the development of corresponding initiatives to improve healthy food access; including a mobile good food market pilot initiative, a food skills and employability project; and work with community partners and across City divisions to ensure enabling policies that support community food activities. The Food Strategy’s goal is to bring healthy, fresh, culturally appropriate vegetables to Toronto’s low income and newcomer populations – particularly those residing in food deserts” (Toronto Food Policy Council, 2013, 2-3).

The **Toronto Food Policy Council** “was established in 1991 to advise TPH and the City of Toronto in the development of inclusive and comprehensive food security policies and programs. The TFPC acts as the community reference group for the Toronto Food Strategy with a focus on identifying emerging issues, facilitating linkages between the community, Toronto Public Health and City Divisions, and advising the food strategy team on their implementation process. The Toronto Food Strategy and TFPC are well-positioned to act as a portal to urban markets, particularly new immigrant and low-income or underserved communities. The partnership between Vineland and the Toronto Food Strategy brings the work of these two institutions together to understand issues of scale and access, with particular emphasis on world crops, in the GTA food system” (Toronto Food Policy Council, 2013, 2-3).

Ethno-Cultural Vegetables Ontario (ECVO) “is a research group within the School of Environmental Design and Rural Development (SEDRD) at the University of Guelph. The team is led by Dr. Glen Filson (U of G), Dr. Bamidele Adekunle (U of G), and Sridharan Sethuratnam (FarmStart). Three of their Graduate and Undergraduate Research Assistants intimately support the research and communications pertaining to the project. The main body of ECVO’s research has been to identify which ethno-cultural crops are most in-demand in the GTA and the potential economic benefits to import substitution. Some research has explored food pricing and culturally delineated purchasing habits in ethnic and chain grocery stores. Their public outreach includes a blog (www.ecvontario.blogpost.com) and a short documentary about ECV in Ontario” (Toronto Food Policy Council, 2013, 7-8).

FarmStart, “a Guelph-based organization, is active in helping new farmers establish themselves through courses and new farmer incubator programs. These new farmers include a significant number of newcomers who are growing world crops. In 2007, they ran a conference called Growing International which brought together key actors in the food system, ethno-cultural researchers, and new immigrant leaders to discuss how Ontario’s agri-food industry can take advantage of opportunities in the Province’s growing ethno-cultural markets. Then in 2010, FarmStart published a report of the same name which further explored the potential for growing the ethno-cultural food market in the GTA. In the same year (2010), FarmStart collaborated with the University of Guelph ECVO team to co-publish a more extensive market research report on the potential market for ECV in Ontario”

(Toronto Food Policy Council, 2013,7-8)

The World Crops Project “supports urban community gardens in growing a collection of world crops to help improve access to culturally appropriate food while investigating market outlet opportunities in these communities. Born out of the Centre for Land and Water Stewardship (CLAWS) at the University of Guelph in 2007 as a project that connected urban newcomers to rural landscapes, CLAWS staff Peter Mitchell later moved the project to The Stop Community Food Centre, where it became the World Crops Project. Here, the “learning gardens” aspect of the program launched and gardens were supplied with world crop seedlings provided by Vineland to cultivate and learn from. As of 2012, a new project partnership has evolved with Vineland with goals of coordinating commercialization efforts at the rural and peri-urban level while growing the learning garden programming. The World Crops Project within the context of community gardens has a strong social media presence that communicates all aspects of world crop production, retailing, public events, community development activities, and culinary uses. Social media sites can be found via their website: www.worldcropsproject.posterous.com.” (Toronto Food Policy Council, 2013,7-8).

In 2011-2012, **The Stop Community Food Centre** “ran a program called Eat Local, Taste Global which helped promote the availability of locally grown world crops and provided resources to help consumers cook with these foods through their farmers’ market and online. The Stop developed a series of online cooking videos to help consumers learn new recipes. Staff also published a guide book on how to grow and cook world crops. These materials are already complementing marketing efforts at farmers’ markets and could also be used in retail settings in the future” (Toronto Food Policy Council, 2013,7-8).

The Toronto Food Policy Council “identified the opportunity to link local producers to new urban markets in the mid 2000s, hosting meetings about import replacement and supporting several new research initiatives. The TFPC funded and supported the 2010 FarmStart publication “Growing International: Exploring the Demand for Culturally Appropriate Foods, Preferences for Ethno-Cultural Vegetables in the Greater Toronto Area,” and later supported research on season extension for world crops. TFPC members are actively involved in the Feeding Diversity project, and other world crop initiatives listed here” (Toronto Food Policy Council, 2013,7-8).

OMAFRA “has provided ongoing support for world crops to both Vineland and the other initiatives. OMAFRA co-published a grower's guide in 2009 called “New Crops, Old Challenges: Tips and tricks for managing new crops!” which profiles 30 new crops. OMAFRA also populates their crops webpage with information that can be applied to ethno-cultural and other specialty crops (falling either into a general vegetable category or under umbrella groups such as cucurbits or leafy greens). OMAFRA New Crop Development Specialist, Evan Elford, manages the “specialty crops” division and writes the blog ONspecialtycrops.wordpress.com which acts as a hub for information on crop production and events affecting specialty crop producers and interested members of the industry in Ontario. Ethno-cultural vegetables are among the specialty crops addressed” (Toronto Food Policy Council, 2013,7-8).

Ontario Fruit and Vegetable Growers’ Association (OFVGA) “have been a catalyst for Vineland’s entry into world crops. They recognized the rapidly expanding market for world crops early on and partnered with Vineland through its CAAP-funded projects to activate research and innovation in this area” (Toronto Food Policy Council, 2013,7-8).

Other Institutions: “Institutions outside those abovementioned have examined the ethno-cultural market in some way or another. A brief synopsis is presented below” (Toronto Food Policy Council, 2013, 35).

West End Food Coop: “Sorauren Farmers’ Market (2008) Roncesvalles and Parkdale neighbourhoods draws local Ontario farmers to market and showcase locally-grown ethno-cultural crops to residents of this diverse community”(Toronto Food Policy Council, 2013, 35).

The Stop Community Food Centre: “Eat Local, Taste Global project and in collaboration with Vineland and the University of Guelph, among others, to increase ethno-cultural vegetable awareness and consumer purchasing. Last year, partnering with a local producer, Vineland supplied fresh ethno-cultural vegetables for use in cooking demonstration and tasting events at the The Stop’s farmers’ market.” (A. Cheng, 2016).

A new farm

Working

market to educate consumers on methods of preparation while raising awareness of these crops among consumers, and their production within Ontario Fact sheets were developed to inform consumers about the crops and to provide a selection of recipes The final output (in review) is a book 'Eat Local, Taste Global' (Van Halem, in press) which describes different ethno-cultural vegetables, provides a selection of different ethnic recipes and tips on growing the crops in the home garden" (Toronto Food Policy Council, 2013, 35).

The Stop and the World Crops Project: "The Stop partnered with the World Crops Project to promote production of vegetables in community gardens across inner city neighbourhoods. Activities were organized through The Stop, which also identified partners and coordinated outreach activities through the growing season. Vineland produced and supplied seedlings to these community gardens, and provided technical support via a variety of outreach events, transferring 'rural' knowledge to inner city dwellers. This directly provided participants with a supply of fresh vegetables through the summer" (Toronto Food Policy Council, 2013, 35).

FoodShare Toronto: "FoodShare included Vineland-produced vegetables in their Good Food boxes through the growing season and helped promote awareness of culturally diverse vegetables amongst consumers" (Toronto Food Policy Council, 2013, 35).

Toronto Food Strategy: "Retail level research identifying what retailers in various key neighbourhoods sold with part of the questionnaire focusing on world crops being sold. Toronto Public Health – A neighbourhood based community food mapping exercise to determine where people in various communities access food and to identify 'food deserts' where access to fresh produce is severely limited. The Stop/University of Guelph (Peter Mitchell): Utilization of urban gardens within inner city Toronto" (Toronto Food Policy Council, 2013, 35).

OKRA

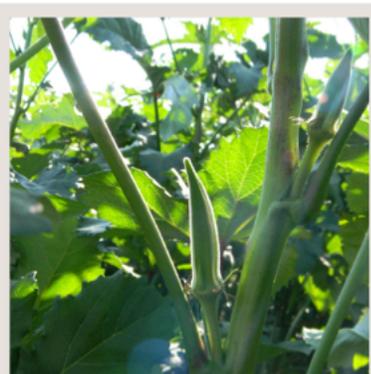
Botanical Name: *Abelmoschus esculentus*



Depending on the variety, okra pods should be harvested when 3-4.5" long



Okra seedling at transplant stage



Okra pod ready for harvesting

Season: Summer Harvest

Small, tender pods that are popular in Asian, African, Caribbean and American cuisine.

Crop height: 5-8' on average, 3-4' for dwarf varieties
Root depth: 20-35"

SEEDING & TRANSPLANT

- Best suited varieties: Clemson Spineless and Cajun Delight (Stokes Seeds)
- Days to Maturity: 20-30 from transplant
- Germination time: 5-10 days
- Greenhouse temperature: 20-22°C. Should not fall below 20°C.
- Soak seeds overnight. Then sow two seeds per 2 - 2 ½" biodegradable pot (e.g. 3" deep Jiffy-Pot, 50 cells/sheet). Sow ¾" deep, then thin to one.
- Growing medium: Soilless media (peat moss & mixes such as Sunshine Mix #1). Vermiculite suggested to be spread on top of emerged seedlings.
- Sow in greenhouse second week of April (approx. 4 weeks before last frost)
- Apply a water soluble seedling fertilizer (12-2-14) 3-4 times while in greenhouse.
- Harden off for two weeks, starting the second last week of May
- Transplant the first week of June when soil temp is 18-20°C. Seedling roots should not be disturbed at transplant, hence the need for biodegradable pots.
- In row spacing: 8'; between row spacing: 12'. Two rows per bed.

FIELD SOIL PREPARATION & FERTILIZATION

- Bed Preparation - Till depth: 20-25" for raised bed formation. Bed width: 3-4', spaced on 5-6' centres. To get maximum production, seedling should be transplanted into black plastic mulched raised beds with drip-tape irrigation underneath.
- Ideal soil condition: Well drained clay-loam, high organic matter, with a pH of 6.5-7.0
- Target soil fertility: 173 kg N/acre, 61-80 mg P L-1 of soil (ppm P), 181-210 mg K L-1 of soil (ppm K). Test soil and amend as needed to achieve this balance. Consider a calcium treatment in recently used fields.
- Add supplemental fertilizer on open beds by side dressing on one side of each row with 25 lbs (11.3 kg) of actual Nitrogen/acre (0.26 g/ft²). Side dress with a second application of the same quantity 3 to 4 weeks later. Alternatively, nutrients can be applied by fertigation (fertilizing through irrigation drip-tape) three times in the life cycle of the crop using a water-soluble 20-8-20 fertilizer (i.e. when plants are 6-8" tall, then 2-3 weeks later, and again at the time of heavy fruit production). For each fertigation, prepare a concentrated fertilizer solution by dissolving 11 lbs (5 kg) per acre of fertilizer in 200 L of water; apply through a Dosatron set at a 1:100 ratio (fertilizer:water).

**WORLD CROP
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OKRA

continued



Evidence of leaf miner on okra leaf



Okra pods sliced in cross-sections, exposing the immature seeds



Okra flowers are perfect and self-pollinating

WATER / IRRIGATION

- Drip tape under plastic mulch is preferred method of irrigation. Alternatively, overhead solid set irrigation.
- Sands and coarse sandy loams require a weekly irrigation of 25 mm of water to maintain high yields.
- Fine sandy loams, silty loams, and loamy clays require heavier and less frequent irrigation (40-60 mm of water every 10-14 days) for optimum yields.

PESTS & DISEASES

- Potential pests: Japanese beetles, Colorado potato beetles, spider mites, cucumber beetle (spotted, striped), aphids, thrips, and leaf miner
- Potential diseases: Powdery mildew, botrytis, cercospora leaf spot

HARVEST / HARVEST TECHNIQUE

- For oriental varieties: Small, tender pods appear 2-3 days after flowering. Harvest the fruit pods when immature, when pods are thin and 3-4½" long, ¾" thick, and weigh ½-¾ oz (5-7 g). When mature, the seeds thicken the pod and the texture becomes fibrous or woody. Note that okra requires frequent harvesting (every other day or daily in peak production) as they will mature quickly. African / Caribbean varieties will not adhere to the above specifications as they are naturally thicker and shorter (3-4" long, 1" thick) but weigh the same.
- Cut pods at stem with sharp knife or needle-nosed shears.
- Okra should not touch water after harvest.
- See Post-Harvest General Guide for more information.

STORAGE

- 5-7 days at 8-10°C. Humidity of 90-95%.
- Storing at colder temperatures will lead to dark spots and accelerated crop deterioration.

**WORLD CROP
GROWER GUIDES**

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