

THESIS

THE B.C. FARMERS' FOOD DONATION TAX CREDIT:  
INVESTIGATING USAGE AMONG FARMERS' MARKET VENDORS

Submitted by

Tara Immell

College of Agricultural Sciences

In partial fulfillment of the requirements

For the Degree of Master of Science

Colorado State University

Fort Collins, Colorado

Summer 2019

Master's Committee:

Advisor: Jennifer Bousselot

Norman Dalsted  
Frank Smith

Copyright by Tara Immell 2019

All Rights Reserved

## ABSTRACT

### THE B.C. FARMERS' FOOD DONATION TAX CREDIT: INVESTIGATING USAGE AMONG FARMERS' MARKET VENDORS

From 2014 to 2016, four Canadian provinces enacted additional tax incentives targeted at farmers who donate fresh agricultural products. These tax laws are described by many as a win-win situation for farmers and people in need. The intention is to encourage farmers to donate. In British Columbia (B.C.), there is very little information released on the utilization of the tax credit. Limited research examining the efficacy of tax credits is available on the financial impacts to farmers and on the availability of fresh food to vulnerable populations. This thesis provides an overview of food donation tax credits in Canada and the United States (U.S.) and insight into tax credit utilization in B.C., taking a case study approach. Data was collected from a small sample of farmers who sell at Metro Vancouver farmers' markets and food organization managers in British Columbia, using surveys and personal interviews. Results show that B.C. farmers donate food to help people in need and are not aware of, or motivated by, the tax credit. Those not currently donating are primarily concerned about potential additional expenses, especially related to human resources and transportation. In conclusion, programs encouraging farmers to donate need to reduce the time and costs required to donate. To both increase awareness of the credit and to illustrate the financial benefit, future research should provide examples of farmers claiming this tax credit. In addition, a study to document remaining fresh agricultural products at the close of farmers' markets would further inform policymakers about potential donations.

## ACKNOWLEDGEMENTS

I would like to thank my family for supporting me. I also offer thanks to all the farmers selling at Metro Vancouver farmers' markets, the market staff, and the food organization staff who filled out a survey and/or spoke with me. I thank my three advisors, Dr. Jennifer Boussetot, Dr. Becca Jablonski, and Dr. Nancy Irlbeck, for your helpful guidance. I also thank my advising committee members, Dr. Norm Dalsted, Dr. Frank Smith, and Dr. Barbara Wallner for your valuable research tips. I especially thank Geneva McCarthy in the Writing Center for insightful questions leading me to completion.

## TABLE OF CONTENTS

|   |     |
|---|-----|
| ABSTRACT.....   | ii  |
| ACKNOWLEDGEMENTS .....  | iii |
| LIST OF KEYWORDS .....  | vi  |
| CHAPTER 1: INTRODUCTION .....   | 1   |
| Overview .....  | 1   |
| Statement of the Research Problem .....                                   | 3   |
| Research Questions .....  | 3   |
| Significance of the Study .....   | 4   |
| CHAPTER 2: REVIEW OF THE LITERATURE .....                                 | 5   |
| The Financial Impact of Tax Credits and Charitable Giving in Canada.....  | 6   |
| The Societal Impact of Food Donation Tax Credits .....                    | 9   |
| The Environmental Impact of Farmers Donating Food .....                   | 15  |
| Agricultural Donations to Food Charities .....                            | 18  |
| Imperfect Produce.....  | 18  |
| Unsold Produce.....   | 20  |
| Unharvested Crops .....   | 20  |
| Logistical Challenges of Moving Fresh Produce .....                       | 23  |
| Farmers' Markets and Farmers' Market Farmers .....                        | 25  |
| Existing Food Donation Tax Credits .....                                  | 26  |
| Ontario .....   | 28  |
| Quebec .....  | 28  |
| Nova Scotia.....  | 29  |
| British Columbia.....   | 29  |
| Tax Credit Utilization .....  | 30  |
| Ease of Use and Risk of Claiming the Tax Credit in British Columbia ..... | 30  |
| Conclusion .....  | 35  |
| CHAPTER 3: METHODOLOGY .....  | 36  |
| Artisan Farmers' Markets .....  | 36  |
| Target Population: Farmers.....   | 37  |
| Target Population: Managers .....   | 39  |
| Target Population: Food Banks and Other Food Organizations .....          | 40  |
| Participant Observation.....  | 41  |
| Instrument Design: Farmer Surveys .....                                   | 41  |
| Instrument Design: Manager and Food Organization Surveys.....             | 42  |
| Instrument Design: Recording Food Distributions .....                     | 42  |
| Permission.....   | 42  |
| Design .....  | 43  |
| Analysis.....   | 43  |
| Farm Demographics from the 2017 Survey.....                               | 44  |
| CHAPTER 4: RESULTS .....  | 48  |
| Survey Results .....  | 48  |
| Frequency of Farmer Donations in 2016 .....                               | 48  |
| Farmers' Reason for Making Agricultural Donations .....                   | 51  |

|  |     |
|--|-----|
| Farmers' History and Future of Claiming Tax Credits .....                  | 52  |
| Retail Value of and Tax Credit for Agricultural Products Donated .....     | 53  |
| Farmers' View on the Tax Credit Increasing Their Food Donations .....      | 55  |
| Unsold Agricultural Products and the Reasons .....                         | 57  |
| Farmer Survey Results from 2019 .....                                      | 59  |
| Food Distribution Results from 2019 .....                                  | 59  |
| Organization's Connection to Farmers' Food Donations .....                 | 61  |
| Organization's Awareness of Tax Credit.....                                | 63  |
| Organization's Education of Farmers .....                                  | 66  |
| Donation Observations.....   | 66  |
| CHAPTER 5: DISCUSSION AND CONCLUSIONS .....                                | 71  |
| Discussion for Practice .....  | 71  |
| Conclusions and Recommendations for Practice.....                          | 73  |
| New Documentation Supporting the Tax Credit .....                          | 73  |
| Yearly Social Media Awareness Campaigns.....                               | 74  |
| Partnering with the BC Farmers' Market Nutrition Coupon Program .....      | 75  |
| Summary.....   | 77  |
| Limitations .....  | 77  |
| REFERENCES .....   | 79  |
| APPENDICES .....   | 99  |
| Appendix A: An Overview of Food Donation Laws in the United States.....    | 99  |
| Appendix B: Food Wastage Throughout the Food System .....                  | 101 |
| Appendix C: Ranking of Food Recovery Methods.....                          | 102 |
| Appendix D: Food Wastage Examples and Quantities at Farms .....            | 103 |
| Appendix E: Cosmetic Standards for Pears .....                             | 104 |
| Appendix F: Branding for Imperfect Produce Sales .....                     | 105 |
| Appendix G: Farm to Food Bank Gleaning Example.....                        | 107 |
| Appendix H: Map of Artisan Farmers' Market Farmers .....                   | 108 |
| Appendix I: Crop Donation Non-Refundable Tax Credits in Oregon.....        | 109 |
| Appendix J: T1 General 2016 - BC428 - British Columbia Tax .....           | 110 |
| Appendix K: Canada T1 General 2016 – Schedule 9 – Donations and Gifts..... | 111 |
| Appendix L: Characteristics of BC Farmers' Market Farmers.....             | 112 |
| Appendix M: Survey Instrument for Farmers in 2017.....                     | 113 |
| Appendix N: Survey Instrument for Farmers in 2019 .....                    | 124 |
| Appendix O: Survey Instrument for Market and Food Bank Managers.....       | 136 |
| Appendix P: Research Permission Request to Board of Directors .....        | 138 |
| Appendix Q: Spoken Script with Farmers to Gain Interview Consent.....      | 139 |
| Appendix R: Spoken Script with Managers to Gain Interview Consent .....    | 140 |
| Appendix S: Consent Form for Farmers .....                                 | 141 |
| Appendix T: Consent Form for Managers .....                                | 142 |
| Appendix U: Emailed Consent with On-Line Survey Link.....                  | 144 |
| Appendix V: Food Tracking Proposal .....                                   | 145 |
| Appendix W: Institutional Review Board (IRB) Approval Letters .....        | 146 |
| Appendix X: Handout Informing About the Tax Credit in Ontario .....        | 150 |
| Appendix Y: Promoting the B.C. Farmers' Food Donation Tax Credit.....      | 151 |

## LIST OF KEYWORDS

charitable giving, food donation tax credit, food banks, farmers' markets

## **CHAPTER 1: INTRODUCTION**

### **Overview**

The British Columbia (B.C.) Farmers' Food Donation Tax Credit, originally effective for the 2016 to 2018 tax years, and currently extended through the end of 2020, covers gifts of agricultural products to food charities and school meal programs from February 17, 2016 to December 31, 2020 (B.C. Farmers', 2019). In exchange for agricultural product donations, farmers and farming corporations receive non-refundable tax credits, designed to reduce their tax liability. On February 16, 2016, British Columbia's Finance Minister Michael de Jong stated that an agricultural measure in the 2016 budget was "To promote and acknowledge the generosity of our agri-food sector," in his Budget Speech to the legislative assembly. He went on to explain that "a new non-refundable farmers' food donation tax credit is being introduced." The 2018 and 2019 Budget speeches, in years when the credit was extended, did not specifically mention the tax credit (Budget Speech, 2018; Budget Speech 2019).

Since 2014, four Canadian provinces have implemented new agricultural tax credits. Ontario, Quebec, Nova Scotia and British Columbia have all expanded the charitable tax credits received by farmers for food donations, thus incentivizing farmers to make food donations to charities. In each province, policy makers provide similar reasons for supporting these tax credits including the social, financial, and environmental goals of reducing food insecurity, supporting improved profitability outcomes for farmers, and lessening food waste. Similar tax credits for U.S. farmers have been in effect since 1977 in Oregon and many states have tax credits today (State of Oregon, 2018). See Appendix A for an overview of food donation tax credits in the United States.



Food Banks Canada, a Canada-wide network of organizations focused on food collection and distribution to food-insecure populations, has been lobbying Canadian government officials at the federal and provincial level for food donation tax credits since 2013 (Fresh Food, 2013). The goal of these credits is to increase the amount of edible food going to people in need instead of being discarded. In B.C., the 2016 census classified 15.5 percent of all households as low income using the after tax low income measure (Issue, 2017). These households had an income of less than half of the median income of all B.C. households. Food Banks BC estimates that they help over 100,000 people in B.C. every month (Food Banks, 2019).

For charities, fresh food donated using this tax credit goes towards reducing hunger in Canada, as opposed to being potentially wasted. Food waste is defined as edible food being discarded (FAO, 2013), and the underlying premise of the tax credits is that “it’s a win on both sides” for charities and farmers (Fresh Food, 2013, p. 2). For donating farmers using the tax credit, their taxes owed may be reduced, thus improving their net farm income after taxes.

On February 25, 2016 at a news release held at the Greater Vancouver Food Bank, British Columbia’s Agriculture Minister Norm Letnick unveiled the tax credit, saying

“I know the British Columbians working in this sector are generous and always looking at ways to give back to their communities. The Farmers’ Food Donation Tax Credit connects the sector with local registered charities and as a result, we all benefit.” (News Release: B.C., 2016, para. 9).

According to the farmers’ market farmers surveyed in British Columbia’s Lower Mainland, their motivation for giving is not connected to a tax credit, but rooted in altruism, wanting to give back to their community and helping people in need. As explained by a small sample of farmers selling their products at farmers’ markets, transportation and time challenges when moving edible food from fields to charities are major hurdles to donating food, and

figuring out the paperwork required to claim a tax credit is an additional burden on a farmers' already limited free time.

Surveys of managers at food charities and farmers' markets showed inconsistency in food donations programs in the past, with programs starting and stopping as opposed to continuing across time. However, the usage of food banks and the rate of food insecurity in Canada is documented as increasing.

### **Statement of the Research Problem**

The B.C. Farmers' Food Donation Tax Credit is intended "to encourage farmers and farming corporations to donate certain agricultural products that they produce in B.C. to registered charities, such as food banks or school meal programs" (B.C. Farmers', 2019, para. 1). This thesis uses a case study approach to evaluate whether this goal is achieved among farmers' market producers in Metro Vancouver.

### **Research Questions**

Due to the original three year nature of the food donation tax credit for B.C. farmers, and two subsequent one year extensions, the tax credit's future is not clear. Initially, in 2016, the tax credit was approved for three years, 2016 - 2018. At the start of its final year, in 2018, the tax credit was extended for another year, through the end of 2019. Then, again, at the start of 2019, the tax credit was extended for another year, through the end of 2020. Because the tax credit's existence beyond December 31, 2020 remains uncertain, farmers are unsure if policymakers will continue or suspend this incentive to donate.

Research into this tax credit's usage by farmers' market producers will inform policymakers of the decisions farmers are making by exploring the question "Do tax credits support increased donations by farmers to food charities?" This is the same question asked in the

legislative assembly of British Columbia by The Honourable Carole James, M.L.A. on February 25, 2016, “Is providing a tax credit to farmers actually going to make sure that more food gets donated to the food banks?” (Legislative Assembly, 2016).

When excess food is donated for human consumption, as opposed to being used in other ways, there are a number of aspects to consider. Specifically, the impact of donations from a social, financial, and environmental point of view will be highlighted, asking “Do tax credits reduce food insecurity?”, “Do tax credits result in a higher net farm income after taxes for farmers?”, and “Do tax credits lessen food waste?”

### **Significance of the Study**

This study provides a preliminary evaluation of how policies intended to support increased donations to food charities are perceived and used by farmers’ market farmers. As these policies are proliferating across Canada and the U.S., evaluation is both important and timely.

Evaluation of the tax credit's usage will provide insight into how farmers are using the tax credit, which should be considered by policymakers (B.C. Farmers, 2019). In order to evaluate whether or not to use a tax credit, farmers first need to know of its existence, understand the impacts to the profitability of their operation, and then the steps required to claim the credit. This research will inform policymakers of the farmers’ awareness of the new credit and provide suggestions on how to encourage more farmers to use the tax credit.

## **CHAPTER 2: REVIEW OF THE LITERATURE**

Tax credits in Canada are designed for a number of different purposes. Every new tax credit introduced means the government foregoes potential tax revenue. Tax credits can therefore be thought of as expenditures in exchange for encouraging certain behavior (Macdonald, 2016). The use of tax credits to encourage socially-beneficial activities dates back at least fifty years and can be viewed as an alternative to direct government expenditure (Surrey, 1970). With direct government expenditure, the cost of a program is known up-front whereas with tax credits, the cost of the program depends upon the tax credit's utilization rate.

Identifying “a need to foster and promote a culture of giving” to food-related organizations, the Standing Committee on Finance in 2013 reported that “tax incentives can play a role both in increasing the number of new donors and encouraging existing donors to give more” (House of Commons, 2013). This committee referenced a brief from Food Banks Canada that outlined a plan to “[c]reate a tax incentive to stimulate charitable food donations to Canada’s food banks” (Stimulating, 2012).

From 2016 to 2018 initially, and now to 2020, farmers in B.C. are being encouraged to donate fresh agricultural products to food charities in exchange for a tax credit. This tax credit has financial, social, and environmental considerations since the food being donated is food which otherwise might not be consumed by humans. For the farmers who donate food, the financial outcome of this tax credit may be reduced income taxes. For the charities that receive the donated food, the societal impact of this tax credit may be reduced food insecurity. And, considering the food itself, the environmental impact of this tax credit may be reduced greenhouse gas emissions by lowering food waste.

## **The Financial Impact of Tax Credits and Charitable Giving in Canada**

The B.C. Farmers' Food Donation Tax Credit is a non-refundable credit and "As a non-refundable benefit it is of no use to those that would not otherwise pay taxes." (Macdonald, 2016). For those farmers who owe income tax, the tax credit will reduce the amount owed by the charitable donation tax credit rate plus 25% of total retail value donated. A Food Banks Canada report from 2013, advocating for a national food donation tax credit, estimated potential foregone tax revenue at CAD 4,122,500<sup>1</sup> nationwide per year were 50% of eligible farmers to claim this tax credit (Fresh Food, 2013). In Ontario alone, a province where the Community Food Program Donation Tax Credit for Farmers has been in place since 2014, the 2014 estimated forgone personal income tax was \$3 million and forgone corporate income tax was \$1 million (Ontario Ministry, 2014). In the two years since 2014, the forgone taxes were estimated at less than \$1 million for personal taxes and less than \$1 million for corporate taxes (Ontario Ministry, 2015; Ontario Ministry, 2016).

These estimates for forgone revenue are focused only on the food donation tax credits. An important fact about the new food donation tax credits is that they are in addition to the existing charitable giving tax credits already in place throughout Canada. Farmers receive the reduced tax benefits of both the new food donation tax credits and the longstanding charitable tax credits. Charitable tax donation rates differ federally and province by province, and are as follows (See Table 1).

---

<sup>1</sup> All dollars are listed in Canadian Dollars unless otherwise noted.

Table 1

*Charitable donation tax credits in Provinces with Farmer Food Donation Tax Credits, 2016*

| <b>Province</b> | <b>Federal Credit<br/>On the<br/>First \$1,000</b> | <b>Federal Credit<br/>For every<br/>Additional<br/>\$1,000</b> | <b>Provincial<br/>Tax<br/>Credit</b> | <b>Total<br/>On the<br/>First<br/>\$1,000</b> | <b>Total for<br/>Every<br/>additional<br/>\$1,000</b> | <b>Additional<br/>Credit for<br/>Agricultural<br/>Donations</b> |
|-----------------|--|--|--------------------------------------|---|---|---|
| <b>BC</b>       | \$262  | \$290  | \$50.60                              | \$312.60                                      | \$340.60  | \$250.00  |
| <b>NS</b>       | \$262  | \$290  | \$87.90                              | \$349.90                                      | \$377.90  | \$250.00  |
| <b>ON</b>       | \$262  | \$290  | \$50.50                              | \$312.50                                      | \$340.50  | \$250.00  |
| <b>QC</b>       | \$262  | \$290  | \$200.00                             | \$462.00                                      | \$490.00  | \$100.00  |

(Canada Revenue Agency, 2017)

Given these tax rates, in British Columbia, prior to the farmers' food donation tax credit, were a farmer to donate \$1,000 in retail value of agricultural products, the non-refundable charitable tax credit would be calculated as \$312.60 (Canada Revenue Agency, 2017). For every additional \$1,000 worth of products donated, the tax credit would increase by \$340.60, up to the limit on charitable donations of 75% of net income (Canada Revenue Agency, 2017). Farmers' non-refundable tax credits introduced since 2014 are in addition to these existing charitable donation credits. Therefore, in British Columbia, an additional tax credit of 25%, \$250, would be added for each \$1,000 of food donated.

Farmers and farming corporations only benefit from these non-refundable tax credits when they owe personal income tax or corporate income tax. Non-refundable tax credits only have value for farmers who owe taxes. When looking at net income totals after depreciation and inventory changes from 2006 to 2017, the sum total of farms in B.C. had a negative realized net income for eleven of the past twelve years (Net Farm Income, 2019). When considering the value of inventory change, net income totals were negative every year from 2006 to 2014. Farm families with negative net income cannot claim food donation tax credits, since they do not owe income tax on their farming revenues. Since record-keeping began in 1926, 2006 was the first

year negative net income totals had ever been recorded for farms in B.C. The lowest net income totals occurred in 2008, coinciding with the global financial downtown and fuel and food crises.

For farms owing tax, in order to receive the new tax credit, individual or corporate farms need to claim the credit on their annual tax forms. In 2016, only 30 farmers filing individual tax returns claimed the new B.C. tax credit on their tax return, for a total of \$9,000 in personal income tax credits (Legislative Assembly, 2018). As for incorporated farms filing corporate income tax returns in 2016, so few claimed the credit that the exact number was not disclosed in order to prevent the release of confidential taxpayer information.

The B.C. Food Donation Tax Credit can only be claimed by farmers who grow the food which they donate. One sales outlet for farmers directly involved in agricultural production is a farmers' market. In Metro Vancouver, an urban area, farming families come from urban, peri-urban, and rural communities to sell at urban farmers' markets. In 2013, the U.S. Department of Agriculture funded research examining the profitability of urban agriculture in the United States (At a Glance, 2012). Dimitri (Dimitri, Oberholtzer & Pressman, 2016), presented statistics showing that in an urban setting, only a third of farmers earn a living from farming alone.

As a whole, farmers over the last 60 years have been turning increasingly to off-farm income where at least one member of the household works in a separate job off the farm. In 1960, the split between on-farm and off-farm income was approximately 50-50. By 1980, the split was 20-80, with off-farm income comprising the majority of household income. And, by 2000, the split was 5-95, with off-farm income now comprising almost all of household income (Miller, 2014, Figure 2). For unincorporated farm families in British Columbia, 94% of their income by 2008 was sourced off-farm and this percentage grew steadily in the following years (Statistics Canada, 2016). The food donation tax credit cannot be applied to off-farm income

and can only be claimed to amounts of up to 75% of farming income. British Columbia has the highest number of farmers with off-farm work in all of Canada, perhaps due to the small scale of their operations (Small Farms, 2017). In terms of numbers, more than half of the farm operators in B.C. worked off their farms in 2017.

Given such small on-farm incomes, and negative total net incomes, Izumi, Wright, and Hamm (2010) and Pearson, Pearson and Pearson (2010) postulate that farmers continue farming for reasons other than income generation. This theory that farmers value a way of life was documented nearly 50 years ago (Gasson, 1973). Income is but one lens through which to measure success. One theory of motivation is labelled the multi-motive/multi-utility approach and considers multiple reasons behind a person's actions. Farmers value positive externalities beyond income and this keeps them farming. The social benefits farmers experience include a farmer's desire to support the local community (Izumi et al., 2010). According to Chouinard, Paterson, Wandschneider, and Ohler (2008), increasing wealth is only one of many reasons why farmers would engage in environmental conservation. Other motivations include the personal satisfaction of a warm glow, social recognition, or due to a belief that they're doing the right thing. The specific environmental benefits include a farmer's contribution to carbon sequestration, wastewater filtration, and urban heat reduction (Pearson et al., 2010).

### **The Societal Impact of Food Donation Tax Credits**

Potential societal impacts resulting from the food donation tax credit result from the opportunity to feed hungry people with food that is grown, but not consumed (FAO, 2013). When it comes to minimizing food wastage, the next best thing to halting the production of excess food is to use this food to feed hungry humans (United States Environmental Protection Agency [EPA], 2014). As the Director-General of the Food and Agriculture Organization of the



United Nations, José Graziano da Silva, states “We simply cannot allow one-third of all the food we produce to go to waste or be lost because of inappropriate practices, when 870 million people go hungry every day” worldwide. The challenge is to ensure previously wasted food goes to hungry people since the amount of food wastage is many times over food aid to the hungry. Food wastage is not new. The first food bank, formed in the 1960s in Phoenix, Arizona, USA is attributed to a soup kitchen volunteer, John Von Hengel, who redirected food waste to the hungry (Schneider, 2013). He saw that the soup kitchen needed more food and encouraged local restaurants and supermarkets who were throwing away edible food to instead donate this food. However, this is not a solution on a global level. As stated by Schneider (2013), “In fact, neither hunger can be solved by the donation of food, nor all edible foodstuff can be distributed to people in need. The goal should be to recover as much edible food as possible by implementing donation” (p.762). By redirecting excess food production to hungry people, social benefits include increasing household food security by reducing food wastage locally. Having “access by all people at all times to enough food for an active, healthy life” is food security (Coleman-Jensen, Gregory & Singh, 2014). However, there exists a paradox of food insecurity in a world of food waste (Sert, Garrone & Melancini, 2013).

An outcome of a farmer claiming the food donation tax credit is to provide food for the needy. In Canada, 91.7% of all households are food secure, while “8.3% of Canadian households experience food insecurity” (Roshanafshar & Hawkins, 2018). A definition of household food insecurity is when “the ability to acquire acceptable foods ... is limited or uncertain” (Loopstra & Tarasuk, 2015, p. 444). Food insecurity is a societal problem leading to poor health since there is a connection between being food insecure and increased health care costs. Jung (2013) found that “food insecurity leads to health problems ... (e.g., diabetes,

hypertension, and coronary heart disease)” (p. 42). Given that food insecurity increases health care utilization and costs, government policy interventions to reduce food insecurity could reduce public expenditures in health care (Tarasuk et al., 2015). Jung finds that the 14.3% of the U.S population who are food insecure cost taxpayers an extra US\$98.4 billion in 2007 and US\$130.5 billion in 2010 in health care costs.

The opportunity to improve nutrition for low-income Americans by collecting unsold, wholesome food goes back decades. Following a 1995 report by the USDA showing that fruits and vegetables were a category of food with a high rate of loss, 1,600 Americorps volunteers were involved in 22 food collection projects in 1996 (Kantor, Lipton, Manchester, & Oliveira, 1997). In 1997, collections from farmers’ markets were successfully piloted by the USDA (Price & Harris, 2000). At this time, farmers’ markets in the Washington D.C. area collected over 8,000 pounds (3,600 kilograms) of food during 3 months in 1997 and over 12,000 pounds (5,400 kilograms) of food during 5 months in 1998. The study found that successful donations relied upon spatial economics and highlighted the fact that collection costs increase when donated food needs to travel a further distance from the farmers’ market to the collection agency. In subsequent years, a handful of academic research has documented fresh food recovery from farmers’ markets. In 2006, of the 157 farmers’ market managers who returned surveys, 52% of these farmers’ markets in California participated in activities moving donated food to low income recipients (Allen, Guthman, & Morris, 2006). In 2016, in Grand Rapids, Michigan, 17,000 pounds (7,700 kilograms) of fresh produce was collected from 40 farmers selling at two farmers’ markets (Sisson, 2016).

Food banks were formed in Canada in the recessionary period of the early 1980s. Food banks are voluntary, extra-governmental, charitable food assistance programs, often started by

community groups. In the 1980s, government benefit levels were reduced and social assistance criteria changes restricted eligibility. These changes resulted in the level of social assistance being lower than is required to meet daily living standards (Tarasuk et al., 2014).

Today, food bank use continues to provide social assistance in Canada even though their formation was originally intended as “temporary, emergency responses” to the 1980s recession (Tarasuk et al., 2014, p. 1405). For example, the Greater Vancouver Food Bank is an operating charity today and provides food to over 100,000 people monthly today even though it “was set up as temporary relief to the hunger crisis in 1983” (Greater Vancouver, n.d.). Prior to the Great Recession of 2008, food bank usage was at a low point; however, it then spiked drastically in 2009 due to the food, fuel and financial crisis of 2008-2009. During the 2008-2009 crisis, real gross domestic product (GDP) in Canada declined 3.3%, which was the first year of a decline in GDP since 1991 (Economic, 2016). However, since 2009, Canada’s GDP for the past decade has shown a positive growth rate each year representing economic growth and higher spending in the country’s economy (GDP, 2019). Nonetheless, food bank usage has trended increasingly higher and higher since 2009.

Organizations in Canada and British Columbia supporting local food banks include Food Banks Canada, Food Banks B.C., and Farm Credit Canada's Drive Away Hunger Program. Food Banks B.C., an organization representing 99 food banks in 2016 across the province, states that 103,464 individuals receive food from food banks each month, with a third of these individuals being children (About Hunger, 2016). This represents 2% of the population turning to food banks every month. In three Metro Vancouver municipalities, the Vancouver Food Bank alone provided 81,000 individuals with food each month in 2018, with 22% recipients being children and 22% being seniors (2018 Community Report, n.d.). The numbers of people turning to food

banks since 2008 has risen. In 2018 alone, the Vancouver Food Bank saw usage increase 12.5% from the previous year. Across Canada, according to Food Banks Canada, usage increased 28% from 2008 to 2016 (Hunger Count, 2015-2016). Statistics Canada's tracking of food insecurity in B.C. from 2005 to 2014 supports the rising need with rates of 7.4% and 7.7% in the years prior to the 2008-2009 crisis and a jump to 8.4% and 8.5% following the crisis (Monitoring, 2017). In B.C., the 2016 census classified 15.5 percent of all households as low income using the after tax low income measure (Issue, 2017). These households had an income of less than half of the median income of all households. Food Banks BC estimates that they help over 100,000 people in B.C. every month (Food Banks, 2019). Nearly one third of those helped by food banks in B.C. are children, and the rate of low income among single-parent families is especially a concern (Towards, 2016). When focusing on food insecurity, the focus is on households, not individuals, where the household's lack of money results in not having access to a sufficient quantity or variety of food. (Roshanafshar & Hawkins (2018). As B.C. has a higher percentage of low income households than Canada nationally (14.2%), a provincial initiative currently being discussed to improve income levels is the living wage campaign. The Fair Wages Commission of B.C. is currently in the public engagement stage of gathering feedback on how to close the gap between the hourly rate needed for a household to meet its basic needs and the, generally lower, legislated minimum wage (Fair Wages, 2019).

There is debate in Canada over food banks getting government support indirectly through food donation tax incentives as opposed to government support going directly to individuals. Food banks remain a source of contention due to social "arguments for a stronger welfare state and more equitable distribution of income and wealth" (Vitiello, Grisso, Whiteside, & Fischman, 2015, p. 421). Food Banks Canada found that 55.7% of people in B.C. using food banks, and

59% nationally, were receiving social assistance and disability-related financial support (Hunger Count 2018). As stated by Duff (2004), “A tax incentive for charitable contributions is a pluralistic way of subsidizing charitable organizations, enabling donors to direct public subsidies to activities of their choosing” and directing public subsidies to charities as opposed to directly to people in need is a subject of policy debate that relates to the underlying debate over the responsibility of the government to be the primary provider for people in need. This concern of food banks and emergency food programs undermining support for the welfare also has roots in the United States (Poppendieck, 1994).

Food donation tax credits allow farmers to donate to their food charity or school meal program of their choice. The focus of the tax incentive is to reduce tax liability on farming individuals and corporations, but does nothing to remove the underlying problem of food insecurity (Tarasuk et al., 2014). This debate over the role of food banks in providing a safety net for food insecure populations in Canada has resulted in a critique of the tax credit. Due to food banks being a source of contention, government tax incentives encouraging donations to these organizations are criticized in the popular press. Articles decry “The Farmers’ Food Donation Tax Credit misses the mark in food security.” (Roff, 2016). This concern was also noted in legislative debates in Ontario when expanding the tax credit to food organizations beyond food banks. As stated by Mr. Jonah Schein, a Member of Ontario’s Legislative Assembly, when he supported the tax credit:

We’ll be supporting this amendment. I am happy that it has expanded beyond merely food banks. I do think, overall, it’s a good intention. However, I think it’s very problematic that, as a province, we’ve steered away from actually delivering adequate income security programs, adequate welfare benefits, adequate ODSP benefits, adequate wages in this province, adequate childcare, and that we’re falling back on the tax, on this kind of band-aid solution. So the intent is good, and I hope it provides some relief to people in this province, but it’s a sorry state of affairs that we’re in this position. (Committee, 2013).

## **The Environmental Impact of Farmers Donating Food**

At the heart of the food donation tax credits is the food being donated, defined as an “agricultural product, which includes meat products, eggs or dairy products, fish, seafood, fruits, vegetables, grains, pulses, herbs, honey, maple syrup, mushrooms, nuts or other produce that has been grown, raised or harvested on a farm in B.C.” (Frequently, 2019, para. 1). Food donation tax credits incentivize farmers to donate fresh agricultural products to food charities and school groups, so that locally produced food products are freely available to food insecure populations.

In terms of diverting edible food to hungry people, this is a worldwide goal. With 1.3 billion tons of estimated food wastage each year, that is over one ton per hungry person (FAO, 2013). The challenge is to ensure that edible food gets to hungry people. As stated by the United Nations (UN), up to one-third of all edible food produced in the world is wasted and in North America, wastage is even higher, at an estimated 40% (FAO, 2013).

UN research shows that practices of North American farmers account for 33% of this 40% (FAO, 2013, Figure 4). For different agricultural commodities, there are varying percentages of wastage. For example, less than half, 48%, of all fruits and vegetables produced end up being consumed; the rest, 52%, is wasted (Gunders, 2012). Whereas for milk, 80% of all milk produced ends up being consumed, with only 20% wasted (Gunders, 2012). See Appendix B for a listing of wastage throughout the food system.

When growing food that ends up as waste, the environment is impacted by a larger carbon footprint. Agricultural sources are estimated to be responsible for 30–35% of global greenhouse gas emission (Tscharntke et al., 2012). The overall impact of food wastage goes beyond the initial production, throughout the supply chain and ending with the manner in which

the wastage is disposed. Food waste also impacts the water footprint, land occupation/degradation, and has a negative biodiversity impact (FAO, 2013).

Worldwide campaigns currently focus on educating consumers, farmers, and businesses about the impact of food wastage, with a goal of reducing food wastage. Some countries have passed laws focused on addressing food waste, but a 2016 proposed bill was defeated in Canada (French, 2013; Bill C-231, 2016). As the Environmental Protection Agency (EPA) in the United States says, “Reducing the amount of food wasted has significant economic, social & environmental benefits” (EPA, 2014). To support this goal, U.S. businesses, including farms, can join the EPA’s Food Recovery Challenge and international consumers can join other similar programs in the UK or Canada (Food Recovery Challenge, 2014; SAVE, 2015; Helping, 2015; Love, 2015). In addition to a Food Recovery Challenge, the EPA has created a pyramid, ranking the actions people can take to reduce food waste and benefit the environment (EPA, 2014). See Appendix C for the EPA’s Food Recovery Hierarchy. When it comes to minimizing food waste, the EPA ranks reducing the production of excess food as the most preferred method of minimizing food waste and feeding hungry people as the second most preferred method of minimizing waste.

Research estimating the carbon footprint created by diverting food waste to different levels of the food waste pyramid supports food donation, especially for certain agricultural products (Eriksson, Strid & Hansson, 2016). The agricultural products showing the best available waste management option as donations to feed hungry people are those with a high energy and high dry matter content, such as beef (Eriksson & Spångberg, 2017, p. 797). Food with a low energy and high water content, such as lettuce, do not have as large of a negative impact on the environment at less desirable levels of the waste pyramid. For a number of agricultural products,

conversion, or the repurposed processing of edible food, showed less environmental impact than donating the food in its original state.

As opposed to re-distributing fresh agricultural products as fresh food, another re-use to feed hungry people is to convert this food other food products, which has a positive environmental impact. In the Lower Mainland of British Columbia, a new social enterprise is illustrating the potential of conversion: Goodly Foods, an initiative of the Greater Vancouver Food Bank begun thanks to a donation from the Walmart Foundation. Goodly Foods began distributing hearty tomato soup made from surplus produce to Greater Vancouver Food Banks in November 2018 (About Goodly, 2019). This food processing company is converting what would be wasted fresh vegetables into a frozen product for food bank distribution and for sale to local buyers. In addition to making the tomato soup, more menu items are planned, and supported employment training is provided to at-risk individuals. This initiative is possible due to a donation of US\$830,000 from the Walmart Foundation's commitment to prevent food waste.

In Toronto, Canada, Second Harvest is the largest Canadian organization helping people in need receive recovered food (Who We Are, 2019). Since 1985, Second Harvest has moved 140 million pounds (63.5 million kilograms) of food to people in need. By preventing this food waste, an estimated 128 million pounds (58 million kilograms) of greenhouse gas equivalents did not enter the atmosphere. In 2018 alone, 11 million pounds (5 million kilograms) of greenhouse gas equivalents were prevented, which is the equivalent to the greenhouse gasses emitted from driving almost 12.2 million miles (20 million kilometers) (Greenhouse, n.d.).

Food wastage, as shown in Appendix D, occurs at all stages of the food system: on farms, during post-harvest handling and storing, while processing, throughout distribution, by individual consumers, and when food reaches end-of-life (FAO, 2013). According to one author,



large commercial farms generate more surplus production whereas smallholders have less surplus (Tscharntke et al., 2012). Food waste is defined as edible food being discarded (FAO, 2013). Whereas food loss, or spoilage, is defined as edible food no longer being edible (FAO, 2013; Parfitt, Barthel & Macnaughton, 2010). In 2015, both the United States and Canada, along with 191 other countries, adopted the UN's 17 Sustainable Development Goals (Sustainable, 2019). Goal 12 focuses on sustainable consumption and production, which includes reducing food waste and food loss. Specifically, Target 12.3 within Goal 12 states "By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses" (Sustainable, 2019, Goal 12, Goal 12 Targets, para. 3). Food donation tax incentives support this goal by reducing food waste through donating edible food.

### **Agricultural Donations to Food Charities**

At the core of the food donation tax credit is the fresh food which is being donated. Current models of fresh food for food bank charities include direct sourcing, gardens and farms at food bank facilities, grow-a-row garden support programs, and gleaning (Vitiello et al., 2015). Given country-level goals of cutting food waste by 50% in France by 2025 and in the United States by 2030 (French Supermarkets, 2016; USDA and EPA, 2015), finding donation sources that otherwise have a high likelihood of becoming food waste is one route to meeting these targets. When considering the fresh products a farmer is likely to donate, imperfect produce, unsold produce, and unharvested produce are three potential sources.

### **Imperfect Produce**

Imperfect produce is an excellent example of the type of food that could potentially be donated to and consumed via food charities. Quality standards for internationally traded produce

result in edible food being unharvested and/or discarded, primarily at the production and distribution stages (Parfitt et al., 2010). This discarding is because fruits and vegetables are deemed “not allowed” for international trade under the 2009 Organisation for Economic Co-operation and Development’s (OECD’s) international marketing standards which regulate acceptable shapes and markings for different classes of produce. Unacceptable, yet edible produce is “out-graded” and removed from the food chain due to its cosmetic appearance (Parfitt et al., 2010). A specific example of discarded fruit includes a pear that has an irregular shape or has completely lost its stalk, as seen in Appendix E (Organisation, 2009). Pear damage during distribution is as high as 82% for Bartlett pears (Agar & Mitcham, 2000). This imperfect produce is perfectly edible.

In 2009, the European Union relaxed its standards on misshapen fruit (European, 2015). *The Guardian* in the UK announced on July 1, 2009 “EU restrictions on the size and shape of 26 types of fruit and vegetables are lifted today, ending the 20-year absence of lumpy melons and suggestively shaped aubergines from supermarket shelves. Hooray!” This trend continues today, with relaxed cosmetic standards for produce in many countries. Today, a number of retailers in Australia, the UK, and France are selling produce which, in past years, would have been discarded. Celebrity Chef Jamie Oliver is a spokesperson for reducing food waste in misshapen produce marketing campaigns and more sales opportunities are emerging worldwide, which may cut down the amount of imperfect produce wasted, as well as that which is donated.

This emerging trend of selling cosmetically rejected produce is a new source of revenue for farmers, with consumers paying between 50 to 70% of full price (Harris, n.d.; Woolworths, 2014). This produce is being branded, as seen in Appendix F as “The Odd Bunch” or “Imperfect Picks” in Australia, “Inglorious” in France, and “Beautiful on the Inside” in the UK. In Canada,

Loblaws, a large chain of grocery stores, is now selling a line of “Naturally Imperfect” produce (McCormick, 2016). Farmers can now sell the off-grade pears that previously would have been discarded (Parfitt et al., 2010; Ingles & Klonsky, 2012). Selling off-grade produce is better economically than donating it as long as the sales prices exceed the tax benefit received.

### **Unsold Produce**

Unsold items at temporary sales outlets, including farmers’ markets, are another potential source of donations since many farmers have unsold leftovers. Since these are direct-to-consumer sales by farmers, and not via an intermediary, this produce is eligible for the tax credit if donated. Retail leftovers, not being sold by a producer, are ineligible for farmers’ donation tax credits (unless they are returned by the retailer to the producer while still edible). Farmers at farmers’ markets will have already transported their produce to a central location, which makes for a single location from which to move the donations to a charity. Transporting produce back to the farm can mean extra labor spent re-loading, unloading, processing, and/or composting. Fresh items that go to waste quickly and are often left over at farmers markets are strawberries and tomatoes (Roberta LaQuaglia, Vancouver Farmers’ Markets, personal communication, March 14, 2014). Had these leftovers been donated to charities, especially charities with food processing capability, jam and sauces could have been preserved for future food security.

### **Unharvested Crops**

Unharvested crops are another source of potential donation, especially if harvested by a gleaning organization, since this involves no extra labor costs. Gleaning farmers’ fields is an age-old practice to increase food security by connecting people with a source of local food. Today, by harvesting food from farmers’ fields after the main harvest is complete, food wastage

is reduced according to the USDA (Recovery/Donations, n.d.). Gleaning is another practice to reduce food wastage that farmers may feel fulfills a charitable need for the community. Directly at the cultivated fields, farmers can allow individuals, or groups, to enter their fields after the main harvest and glean the excess (Hoisington et al., 2001). This excess can then be donated since food bank guidelines in Canadian provinces allow donation of freshly gleaned produce (Food safety guidelines, 2006). Some farmers are hesitant to allow gleaning due to the legal liability issues involved today, which include injuries while gleaners harvest and the safeness of donated foods. Injuries can be mitigated by release of liability forms and, in certain areas; legislation holds good-faith donors harmless from any resulting foodborne illness.

Historically, farmers have not harvested fully and not all of a farmer's field will ever be harvested fully. For example, farmers were instructed to "not wholly reap the corners of thy field" in the King James Version of the Bible (Leviticus 19:9 & 19:10). Today, USDA guidelines recommend to "leave a minimum of ½ acre of unharvested, standing grain crops for each 40 acres of cropland" (USDA, 2014). This unharvested grain contributes to the 38% of edible grain wastage (Gunders, 2012). The instructions from the USDA are for an environmental benefit, to provide a natural environment for animals. Unharvested crops do decompose and can become valuable compost for soil health; so farmers may feel they are already contributing to the environment, both in terms of animal habitat and compost health. However, composting is, according to the EPA's pyramid on preventing food waste, one of the least preferable methods for using edible food. Feeding hungry people is three steps more preferred to composting (United States Environmental, 2014) and unharvested, edible crops are a source of farmer wastage (Parfitt et al., 2010). Farmers may also use excess edible food for animal feed (Recycling, 2003). However, using edible food for feeding animals is two steps less desirable than feeding

humans (EPA, 2014). Edible, unharvested crops are a fresh food source and farmers can claim a tax credit if the food is instead harvested and donated (Parfitt et al., 2010).

Farm to Food Bank was a non-profit food rescue organization in British Columbia, Canada. In 2015, this organization saved over 50,000 pounds (22,680 kilograms) of fresh, local produce from becoming food wastage; with over 800 pounds (363 kilograms) being collected in a single day (See Appendix G). By partnering with organizations like Farm to Food Bank, farmers can acquire food to donate without added extra labor expense or time (Farm to Food Bank, 2015).

Over five seasons, Farm to Food Bank built a non-profit gleaning business operating in four communities in British Columbia, Canada: Abbotsford, Chilliwack, Mission and Vancouver. Farm to Food Bank provides fresh food to the Abbotsford Food Bank and other community partner charities (See Table 2).

Table 2

*Farm to Food Bank Donations, 2013 - 2015*

|                                  | <b>2013</b>            | <b>2014</b>                     | <b>2015</b>                     |
|----------------------------------|------------------------|---------------------------------|---------------------------------|
| <b>Annual Pounds (Kilograms)</b> | 19,100 (8,664)         | 27,000 (12,247)                 | 53,600 (24,313)                 |
| <b>Cities</b>                    | Abbotsford, Chilliwack | Abbotsford, Chilliwack, Mission | Abbotsford, Chilliwack, Mission |
| <b>Number of Farms</b>           | 6                      | 9                               | 17                              |

(Annual Impact, 2015)

In addition to delivering fresh food, Farm to Food Bank partnered in June 2015 with Helping Harvest, an organization creating a local brand of preserved food (Annual Impact, 2015). Food banks in Canada are relied upon by over 850,000 people each month, over 100,000 of whom are in British Columbia (Let's Talk, 2015). Monthly, 3,000 of these British Columbians have access to fresh, local produce due to the work of Farm to Food Bank (Abbotsford Food Bank, 2015).

## **Logistical Challenges of Moving Fresh Produce**

Food donations from farmers come from three main sources: imperfect produce, unsold produce, and unharvested crops. In all cases of food donation, food must be moved from where it is produced to where there are people in need. This presents logistical challenges, especially when considering the need for refrigeration. One year after the B.C. Farmers Food Donation Tax Credit was introduced, the provincial government addressed this challenge by allocating \$10 million to Food Banks BC (News Release: \$24 Million, 2017). As a provincial charity network representing 100 food banks throughout B.C., Food Banks BC allocated 65% of this funding to addressing the transportation challenges of moving fresh food and 35% to the refrigeration of fresh food. The fact that food banks had to turn away farmers' donations of fresh food illustrates how food banks needed more infrastructure to have the capacity to accept donations of fresh agricultural products. As stated by the Executive Director of Food Banks BC, Laura Lansink, food banks "are regularly offered donations of perishable food, and it is heart-breaking that they have to turn down these foods due to a lack of refrigeration storage. That changes today with this new funding and families will no longer have to rely on cans of non-perishable food alone, but instead will have access to a wide variety of fresh, nutritious foods that all families want and deserve." (News Release: Provincial Funding, 2017). According to Campbell, Ross, and Web (2013) the challenges that food banks face when accepting fresh produce donations are: storage and refrigeration at the food bank, as well as transportation and refrigerated storage during procurement and distribution.

As a model of large-scale food redistribution for highly perishable foods, in 2015, Leket Israel distributed 30 million pounds (13.7 million kilograms) of fresh fruits and vegetables to people in need (Philip, Hod-Ovadia, & Troen, 2017). This food was "mainly agricultural produce

that is aesthetically unacceptable to the Israeli market” (Philip, Hod-Ovadia, & Troen, 2017, p. 233). Being a non-profit organization, whose funding is 100% through donations, Leket Israel relies upon 100 full- and part-time employees and over 58,000 volunteers each year. The group uses 15 refrigerated vehicles to move food from where it is donated to food redistribution organizations serving an estimated 175,000 people yearly. Leket Israel is able to move this scale of produce based upon having a focus on solely perishable products moved from business to business, where there is no direct contact with the end client receiving the food.

In Canada, Second Harvest’s 26 million pounds (12 million kilograms) of food redistributed in the Greater Toronto Area in 2018 approaches the amounts redistributed by Leket Israel (Who We Are, 2019). Second Harvest has 11 vehicles picking up food from 740 donors and delivering to 373 recipient organizations 7 days a week. They operate on a similar model of picking up from donors and delivering to community organizations, as well as offering education and cooking programs. Both the Israeli and Canadian organization have roots in offering free lunches to children.

Second Harvest opened their supply and demand matching technology to the public on a free website, FoodRescue.ca, in May of 2018. Initially available only in Ontario and then expanded to B.C., the focus of this website is on redistributing smaller amounts of food in a more local neighborhood and directly between two parties. This website allows donors to post available food and collecting agencies to directly pick it up. The emphasis is on how anyone can donate once food safety practices have been confirmed. Similar matching technology is available in B.C. on the website FoodMesh.ca which has 98 recipient charities (Jessica Regan, Food Mesh, personal communication, April 1, 2019). However, on this retail platform, the focus is not on collecting food from farmers, but from commercial operations and supplying food not suitable

for human consumption to farmers for animal feed (Our Network, n.d.). In the past, FoodMesh.ca, started speaking with Farm Credit Canada, who operate a Drive Away Hunger Program, and offered an avenue through which farmers could safely donate and track their donations to reduce the administrative overhead for claiming a tax credit. However, a partnership never developed (Jessica Regan, Food Mesh, personal communication, April 1, 2019).

### **Farmers' Markets and Farmers' Market Farmers**

Miller (2014) defines direct sales to consumers as selling directly to consumers at a gate, stand, or storefront (Miller, 2014). Direct sales at farmers' markets is an increasingly popular sales method. As per Martinez et al. (2010), a farmers' market is a common area where several farmers gather on a recurring basis to sell a variety of fresh fruits, vegetables, and other farm products directly to consumers. According to Beckie, Kennedy, and Wittman (2012, p. 334) "farmers' markets are important and increasingly prevalent venues for direct marketing locally grown food" where social economies are formed. At markets in Western Canada, a social economy can be observed in which the market community supports a broad range of economic, social, and environmental objectives.

Farmers' markets in British Columbia can choose to meet the membership criteria and join the industry association, BC Association of Farmers' Markets (BCAFM). As a member, market managers must ensure that all agricultural products sold at their markets are from primary producers who grow, make, bake, raise, or wild harvest their goods in B.C. In B.C., over 145 farmers' markets belong to this association and have connections to thousands of farmers throughout B.C. who come to the markets to sell what they have grown (About Us, 2014). At over 60 of these markets, both members of the public and members of the BC Farmers' Market



Nutrition Coupon Program buy produce directly from farmers. Members of the Coupon Program are B.C. people in need who are provided with \$3 coupons to shop at farmers' markets (Coupon Program, n.d.). This coupon program in B.C. has similar aims as the larger Supplemental Nutrition Assistance Program (SNAP) in the U.S. As of February 2019, low income Americans can spend vouchers at over 3,200 participating farmers' markets (SNAP, 2019).

Anytime a farmer has excess unsold product that is edible at the end of a market, they need to decide what to do with this product. Farmers selling at farmers' markets can face challenges with transporting donations either from their farm to a food collection agency or from a farmers' market to an agency since travelling to sell at markets is historically up to 240 miles (386 kilometers) (Brown, 2002). In general, local farmers selling at markets in British Columbia are considered to come from within an average of 162 miles (202 kilometers) (Wittman, Beckie, & Hergesheimer, 2012). For the Artisan Farmers' Markets in Vancouver, Canada, farmers drive up to four hours, 250 miles (400 kilometers), to sell their fresh products (Appendix H) and may have unsold, edible items to transport back to their farm at the end of a day. Some farmers' markets provide farmers with the opportunity to leave donations at the market and have them collected by food donation agencies.

### **Existing Food Donation Tax Credits**

Starting in 2014, four Canadian provinces began to offer additional tax relief to farming individuals and corporations for fresh products they produced and then donated to registered charities. These new, or expanded, provincial tax incentives are in Ontario, Quebec, Nova Scotia, and British Columbia, as well as in a number of U.S. states. Tax credits are discussed repeatedly as a potential solution to food insecurity in public policy debate at the national and provincial level (Household Food, 2016).

At the core of these tax credits is a reduction in taxes for farmers who donate. However, each Canadian province has structured their tax credit slightly differently (See Table 3), as has each U.S. state (See Appendix A).

Table 3

*Provincial Tax Credits Compared*

| <b>Legislation</b>  | <b>Date(s)</b>                                      | <b>Details</b>   | <b>Eligible Donors</b>                               | <b>Eligible Recipients</b>   |
|---|---|--|--|--|
| <b>B.C. Farmers' Food Donation Tax Credit</b>                 | 2016,<br>Feb 17                                     | 25% of retail value in addition to the charitable donation credit  | Farming individuals and corporations                 | Registered food charities and school food programs in B.C.   |
| <b>Nova Scotia's Food Bank Tax Credit for Farmers</b>         | 2016,<br>Jan 1                                      | 25% of fair market value in addition to the charitable donation credit   | Farming individuals and corporations                 | Eligible food banks in Nova Scotia   |
| <b>Ontario Community Food Program Donation Tax Credit</b>     | 2014,<br>Jan 1                                      | 25% credit in addition to the charitable donation credit   | Farming individuals and corporations                 | Community food programs  |
| <b>Quebec's limit increase for donations of food products</b> | 2015,<br>Mar 27<br>&<br>expanded<br>2016,<br>Mar 18 | The charitable donation amount eligible to claim increased 50% to a higher amount (farmers can now claim a \$1,500 donation for every \$1,000 donated) | Recognized agricultural producer and food processors | Initially, only Moisson members of the Food Banks of Quebec network. Then, in 2016, associate members of the Food Banks of Quebec network became eligible. |

**Ontario**

The Ontario Community Food Program Donation Tax Credit was the first provincial tax relief enacted and came into effect on January 1, 2014 (Community Food, 2013). This new legislation offers a 25% credit in addition to the charitable donation credit (Ontario Bill 36, 2013). This adds a \$250 tax credit to the previously calculated tax credits to equal \$562.50 in non-refundable tax credits on the first \$1,000 donated and \$590.50 on every \$1,000 thereafter (not taking into account first time donor's additional 25% in federal credits).

**Quebec**

Starting March 27, 2015, Quebec adjusted their donation limit on agricultural products, increasing it by 50%. When calculating the provincial credit, the amount of agricultural product

donated is grossed up by 50%; so every donation of \$1 become \$1.50 when calculating the provincial credit. This also means that the federal donation limit of 75% of net income is raised to 112.50% of net income. Starting on March 18, 2016, Quebec expanded their increased tax credit to food products in addition to agricultural products. This resulted in food processors being able to claim additional tax credits for donations of milk, oil, flour, sugar, deep-frozen vegetables, pasta, prepared meals, baby food, and infant formula (Guide, 2016).

### **Nova Scotia**

Nova Scotia's Food Bank Tax Credit for Farmers came into effect on January 1, 2016 (Budget 2016-2017, 2016). The non-refundable tax credit provides for a 25% of fair market value credit for farming individuals and corporations (Budget 2016-2017, 2016). This results in a \$599.90 credit for the first \$1,000 donated and an additional \$627.90 credit for every additional \$1,000 donated. When announcing the new tax credit, on May 19, 2016, Nova Scotia's Agriculture Minister Keith Colwell said "This will help ensure food banks have fresh, local, nutritious produce." (Tax Credit, 2016, para. 3). The estimated cost of this tax credit to the government is \$300,000.

### **British Columbia**

For a limited time period, from February 17, 2016 to December 31, 2018, the B.C. Farmers' Food Donation Tax Credit was initially enacted to provide non-refundable tax credits to farmers who donate eligible agricultural products (News Release: Roadmap, 2015). The provincial budget in 2018 and 2019 enacted one-year extensions to the tax credit (Budget, 2018; Budget, 2019). This results in a \$562.60 credit on the first \$1,000 of retail value donated and

\$590.60 on every subsequent \$1,000 donated (not considering the first time donor 25% federal bonus).

### **Tax Credit Utilization**

Data on the number of farmers and amount of tax relief claimed vary location to location. Oregon, a state where a food donation tax credit was enacted in 1977, has detailed year-by-year data on the number of farmers claiming the credit as well as the total estimated and actual value of tax relief to farmers (State of Oregon, 2018). For example, in 2016, US\$400,000 was the estimated cost and US\$100,000 was the actual cost to the government for Crop Donation Tax Credits. Overall, the historical trend shows an increasing utilization of the tax credit (See Appendix I).

### **Ease of Use and Risk of Claiming the Tax Credit in British Columbia**

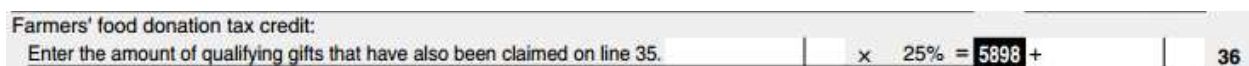
The province of British Columbia provides many different forms of tax relief to farmers and this tax relief has been making Canadian farmers more competitive in global trade for decades (Perry, Nixon, & Bunnage, 1992). For example, the Provincial Farmland tax credit reduces by 50% the amount of school tax payable on property taxes (Provincial, n.d.) and the fuel tax and carbon tax do not apply to farmers (Coloured, 2015). This tax relief is automatically calculated by the taxing authorities in the first case, and is received by showing a valid farmer's card in the second case (Farm Trucks, 2016; Farm Vehicles, 2016).

Taking advantage of the B.C. Farmers' Food Donation tax credit is much more involved. Plus, even with legal liability protection against recipient food-related illnesses in some jurisdictions, claiming this credit could be connected to reputation risk were a person to fall ill from donated produce where the source farmer is named. Claiming this credit does require a written record for all donations since in order for farmers to claim the tax credit, they need to

hold charitable tax receipts for their donations of agricultural products and claim the credit on their personal income tax forms.

The charitable tax receipt must itemize the donated agricultural products and assign each a value. Guidance on the valuation is provided by the Province of British Columbia's FAQ webpage for the credit (Frequently, 2019). A valuation of the agricultural products, if under \$1,000, can be done by "a member of the registered charity, or another individual with sufficient knowledge of the donated agricultural product." (Frequently, 2019, para. 19). Oftentimes, the person with sufficient knowledge is the donating farmer, who will provide an invoice to the charity. In cases of a donation over \$1,000 the Canada Revenue Agency sets the guideline that the donation must be valued by a third-party, who is not associated with the charity or the donor (Determining, 2018). For every donation, the charity must issue the farmer a tax receipt, which the farmer will then use at tax time.

Completing the paperwork to claim the credit makes tax filing more complicated. The B.C. Farmers' Food Donation Tax Credit is line 5898 (See Figure 1) on the British Columbia Tax Form 428. (Canada Revenue Agency, 2016). (See Appendix J).



Farmers' food donation tax credit:  
Enter the amount of qualifying gifts that have also been claimed on line 35.  × 25% =  +

*Figure 1. The line number for claiming the Farmers' Food Donation Tax Credit in B.C.*

The below steps detail the paperwork required to claim this credit (Canada Revenue Employee ID 02584 CRA, personal communication, January 31, 2017). The purpose of illustrating this process is to show how some farmers may be overwhelmed by the amount of paperwork involved in claiming the tax credit.

In order to claim the tax credit, first the farmer needs to gather tax receipts from eligible charities and total the retail amounts of all eligible agricultural product donated. For determining

eligibility, products must be fresh and processed only to the minimum amount required for sale (B.C. Farmers', 2016). The donation values are determined when the farmer invoices the charity along with their donation. The charity will then return a charitable gift receipt to the farmer. Turning to the tax forms, to the left of the 25% on line 5898, a farmer needs to write the total retail value of all eligible agricultural donations. However, the farmer can receive a larger tax credit than what appears on this line since this gift can also be included in tax forms on the lines above labelled 'Donations and Gifts', an amount which comes from the Federal Form's Schedule 9 (Appendix K). So, the first step for the farmer is to fill out Schedule 9 of the Federal T1. On this form, the farmer will put the total of all gifts and donations, not only farmers' food donations. Agricultural products eligible under the B.C. Farmers Food Donation Tax Credit must be given to registered charities or school programs, so the amount of total retail value donated must be included on Line 1 (See Figure 2)

| T1-2016   |  | Donations and Gifts |  | Protected B when completed<br>Schedule 9 |          |   |
|---|--|---------------------|--|--|----------|---|
| For more information, see line 349 in the guide and see Pamphlet P113, <i>Gifts and Income Tax</i> .  |  |                     |  |  |          |   |
| Attach a copy of this schedule to your return. Remember, you may have charitable donations shown on your T4 and T4A slips.                                    |  |                     |  |  |          |   |
| Donations made to registered charities, registered Canadian amateur athletic associations, and registered Canadian low-cost housing corporations for the aged |  |                     |  |  | 1,000.00 | 1 |

Figure 2. Line 1, Donations made to registered charities

Again, this amount will come from the farmer writing an invoice to the charity for amounts donated and the charity writing a charitable gift donation receipt for the farmer. In this example, a retail value of \$1,000 is donated. The farmer then needs to check if the full value of this donation exceeds 75% of net income. This is done on Line 6 and 7. (See Figure 3).

|   |   |   |          |          |
|---|---|---|----------|----------|
| Add lines 1 to 4.   | Total eligible amount of charitable donations | = | 1,000.00 | 5        |
| Enter your <b>net income</b> from line 236 of your return.  | 1,334.00                                      | 6 | × 75% =  | 1,000.05 |
| Note: If line 5 is less than line 7, enter the amount from line 5 on line 13 below and continue completing the schedule from that line. |   |   |          |          |

Figure 3. Lines 5, 6, and 7, Confirming a farmer's donations are less than 75% of net income

A farmer may donate up to 75% of their net income. If Line 5 is greater than Line 7, there is a secondary check to do, considering gifts of property, on Lines 8 thru 12, before proceeding to Line 13. In this example, we proceed directly to Line 13, which lists a farmers' allowable charitable donations (See Figure 4).

|   |            |          |           |
|---|------------|----------|-----------|
| Allowable charitable donations (enter the amount from line 5 or line 12, whichever is <b>less</b> ) | <b>340</b> | 1,000.00 | <b>13</b> |
|---|------------|----------|-----------|

Figure 4. Allowable charitable donations

After adding in other gifts the farmer may have given, the farmer is ready to calculate their Federal Charitable Donations Tax Credit. The first \$200 donated is at a different tax rate than amounts over \$200, so farmers must take this off on Line 16 (See Figure 5).

|   |             |          |           |
|---|-------------|----------|-----------|
| Allowable charitable donations (enter the amount from line 5 or line 12, whichever is <b>less</b> )   | <b>340</b>  | 1,000.00 | <b>13</b> |
| Eligible amount of cultural and ecological gifts (see line 349 in the guide)  | <b>342+</b> |          | <b>14</b> |
| Add lines 13 and 14.  | =           | 1,000.00 | <b>15</b> |
| Enter \$200 or the amount from line 15, whichever is <b>less</b> .  | =           | 200.00   | <b>16</b> |
| Line 15 minus line 16. If your <b>taxable income is less than \$200,000</b> , enter "0" at line 26 and continue on line 28. Otherwise, complete lines 18 to 27, before continuing on line 28. | =           | 800.00   | <b>17</b> |

Figure 5. Removing the first \$200 donated on Lines 15 to 17

Then, assuming taxable income is less than \$200,000, Line 26 is the next line to be completed (See Figure 6). On Lines 26 to 31, you will calculate percentages of the amounts donated. The first \$200 of retail value donated is multiplied by 15% on Line 31. The remaining eligible amount is multiplied by 29% on Line 29.

|   |        |           |         |   |        |           |
|---|--------|-----------|---------|---|--------|-----------|
| If you did not complete lines 18 to 25, enter "0". Otherwise, enter the amount from line 22 or line 25, whichever is <b>less</b> .  | 0.00   | <b>26</b> | x 33% = | + | 0.00   | <b>27</b> |
| If you did not complete lines 18 to 27, enter the amount from line 17. Otherwise, enter the result of <b>line 17</b> minus line 26. | 800.00 | <b>28</b> | x 29% = | + | 264.00 | <b>29</b> |
| Enter the amount from line 16.  | 200.00 | <b>30</b> | x 15% = | + | 30.00  | <b>31</b> |

Figure 6. Calculating percentages of the amounts donated

Moving down to Line 34, the last step is to add together the two amounts on Lines 29 and 31 (See Figure 7).



|   |                     |   |        |    |
|---|---------------------|---|--------|----|
| Add lines 27, 29, 31, and 33.<br>Enter this amount on line 349 of Schedule 1. | Donations and gifts | = | 294.00 | 34 |
|---|---------------------|---|--------|----|

Figure 7. Adding Donations and Gifts

Moving back to Form BC428, the amounts from Schedule 9's Line 16 and Line 17 must be copied to the BC428's Lines 32 and 33, where they are multiplied by the B.C. tax credit rates. Finally, getting back to the \$1,000 donation, this is multiplied by 25% and written on Line 36 of this form (Line 5898 year after year). Finally, one last addition gives the farmers' total British Columbia non-refundable tax credit of \$377.72 for \$1,000.00 worth of agricultural donations. (See Figure 8).

|  |   |           |        |    |
|--|---|-----------|--------|----|
| Donations and gifts:   |   |           |        |    |
| Amount from line 16 of your federal Schedule 9                               | 200.00                                      | × 5.06% = | 10.12  | 32 |
| Amount from line 17 of your federal Schedule 9                               | 800.00                                      | × 14.7% = | 117.60 | 33 |
| Add lines 32 and 33.   |   |           | 127.72 | 34 |
| Add lines 31 and 34.   |   |           | 127.72 | 35 |
| Farmers' food donation tax credit:   |   |           |        |    |
| Enter the amount of qualifying gifts that have also been claimed on line 35. | 1,000.00                                    | × 25% =   | 250.00 | 36 |
| Add lines 35 and 36.   |   |           | 377.72 | 37 |
| Enter this amount on line 49.  | British Columbia non-refundable tax credits |           | 6150   |    |

Figure 8. Copying amounts from Schedule 9 and calculating the total non-refundable tax credit.

In addition to the burden of added tax credit paperwork, farmers can be concerned about the legal liability and reputation risk of donating food. Two of the four provinces with tax credits for agricultural producers have legislation protecting good-faith donors from liability were someone to fall ill after consuming donated food. The Food Donor Encouragement Act in British Columbia, enacted in 1997, holds harmless food donors (Food Donor, 1997). The Donation of Food Act in Ontario, enacted in 1994, also holds harmless food donors (Donation, 1994). Food banks can accept fresh produce without fear of legal liability as these acts also hold those distributing donated food harmless (Food Safety, 2006; Model Guidelines, 1999). These legal liability laws have been present for years in other countries as well, including the United States' Good Samaritan Food Donation Act (United States, 1996).

As these acts have been in place for two decades, farmers are already donating. According to Michelle Mungall, a member of the B.C. legislature, “Farmers never failed to step up to the plate and donate. It wasn’t being recognized. I am pleased to see that that will now be recognized and that they will be able to get a tax credit” (Legislative Assembly, 2016). In Quebec, the number of farmers donating to 19 regional food banks increased more than 10-fold the year a tax credit for donations was enacted. In one year alone, 143 new farmers donated; raising the number of farmers donating from 29 to 172 and resulting in 463,000 kilograms of donations to over 1,000 organizations throughout Quebec (Budget 2016-2017, 2016). However, protection from legal liability does not afford protection from reputation risk, so there continues to be a risk were someone to fall ill from a donor farm identified by name.

### **Conclusion**

There has been much interest in food donation tax credits across Canada in the last few years. Many farmers are donating food – both claiming tax credits for these donations and not claiming tax credits. However, research on the utilization of tax credits and how these new policies impact producers has not been conducted.

## **CHAPTER 3: METHODOLOGY**

The assessment of farmers' donation practices, barriers to donation, and awareness of the B.C. Farmers' Food Donation Tax Credit was done by surveying and conducting short interviews with farmers and farmers' market managers, respectively. Taking a case study approach allows opportunity to hear directly from farmers about their past donation practices and future intentions, resulting in valid insights into whether the B.C. Farmers' Food Donation Tax Credit goal of encouraging farmers to donate is achieved among a small number of farmers' market vendors in Metro Vancouver.

### **Artisan Farmers' Markets**

Artisan Farmers' Markets is one member of the BC Association of Farmers' Markets and operates three weekly markets from May to October in three Metro Vancouver areas: the City of Burnaby, the City of North Vancouver, and the District of West Vancouver (Artisan, 2017). Throughout B.C., there are over 145 farmers' markets operating as members of this provincial farmers' markets association (B.C. Farmers' Market Trail, 2019). These are temporary markets selling fresh agricultural products and food, which setup at the start of a day and take down at the end of the day (Temporary Food Markets, 2014). At each of the three Artisan Farmers' Markets, and on a variety of dates throughout the growing season, farmers travel from the surrounding areas to sell fresh agricultural products in the heart of Metro Vancouver for five hours on Saturdays and/or Sundays (Vendor, 2016). These farming operations range in size greatly, cultivating land ranging from less than an acre to over 200 acres, earning gross annual revenues of under \$2,500 to over \$200,000. They employ a variety of growing practices, with some growing conventionally and others following organic methods (Selling, 2008; Vendor, 2016).

(See Appendix L). Some farmers sell at only one farmers' market on one weekend day, others will sell at over ten farmers markets throughout Metro Vancouver on both weekend days (What's, 2017).

### **Target Population: Farmers**

The initial target population was farmers selling at Artisan Farmers' Markets in the 2016 season, the first year of the 2016 – 2018 B.C. Farmers' Food Donation Tax Credit. This target population was chosen because the farmers' market is a location to which these twenty eight farmers already transport food. It is a location from which farmers remove unsold, edible food and return to their farms to compost it. Farmers' market farmers were also chosen since there is evidence of charitable giving from farmers' markets and a social economy (Beckie et al., 2012). For example, as mentioned by Wayne Stetski, a member of parliament, a charity in Revelstoke “picked up donations at the weekly farmer's market. The food recovery program in August had its biggest day with over 800 pounds (363 kilograms) of food donated in one day. Over the three month period, 16,718 pounds (7,583 kilograms) of food were recovered, worth almost \$42,000, and it was redistributed to families in need.” (House of Commons, 2014) Focusing only on farmers' market farmers may be a source of bias since primarily family farmers use this marketing channel. Thus, charitable giving by farming corporations was largely excluded, with the exception of two corporations selling at Artisan Farmers' Markets.

Sixteen farmers were first contacted in person during the last month of the market, in October 2016, after they had setup for the day but were not yet selling. In October, no respondents were ready to talk about their donations and tax credits. The feedback from farmers was that they had not yet started thinking about taxes for the year. Following the 2016 tax year, in January 2017, farmers were again contacted. Due to the lack of initial participation by farmers,

surveys were e-mailed to all farmers who had ever sold at, or applied to sell at, Artisan Farmers' Markets and nearby markets. Farmers were contacted via email and asked to fill out an on-line survey. Of the 204 farmers contacted, ten farmers completed the online Qualtrics Survey (See Appendix M). Since many farmers did not respond to the on-line survey, three farmers were then directly approached at two farmers' market and asked if they were willing to answer questions in person. All three farmers selling at the Nat Bailey and Hastings Park winter farmers' markets completed the same survey, verbally. All remaining farmers who did not respond, 191, were phoned and the five farmers reachable by telephone completed the same survey, via phone.

In total, 18 farmers of 204, nearly 9%, completed the survey. An additional five farmers began the survey on-line, but did not complete it. Ten farmers filled out the survey on-line. An additional three took the survey in person and five took the survey verbally on the phone.

The low response rate among farmers was due to the timing of initially asking farmers in October about an end of year practice, completing tax returns. The springtime low response rate, as communicated by the farmers who did take the survey in person at markets, was that farmers said they had nothing to say about the tax credit, as they had never heard of it before. An additional factor is the hours farmers work. According to the 2016 census, one quarter of B.C.'s farmers work over 40 hours on farm and over half of the farmers have off-farm jobs (Small Farms, 2017).

Farmers were again contacted in April of 2019, with a shorter survey, asking about tax credit utilization in 2016, 2017 and 2018. Farmers answered this survey in person at the annual BC Association of Farmers' Markets Conference and at farmers' markets throughout Metro Vancouver.

### **Target Population: Managers**

Farmers' market managers often organize produce donation pickups at the end of a market. Accordingly, they were also interviewed. The target population was managers working for Artisan Farmers' Markets, as well as for the largest farmers' markets in the Metro Vancouver area, where there are twenty five summertime farmers' markets (Find, 2016). These markets all belong to the BC Association of Farmers' Markets, a member's advocacy group working to support, develop, and promote farmers' markets in British Columbia (About Us, 2014). At each market a person working at the market ensures all of the day's setup, take down, and overall operation runs smoothly (About Us, 2014). And, at the BC Association of Farmers' Markets, a group of four managers work to ensure all markets are supported throughout the province with tools to be running smoothly (About Us, 2014).

The respondents' roles were varied, most directly organized markets, two recruited and managed farmer relationships, and three were with non-farm-related organizations. The number of farms the managers worked with ranged from eight to 700, with the farmers markets themselves each working directly with up to 120, and the overall association working with the greater number. There were less than 10% of additional farms indirectly related to each manager. Farms ranged across all types and sizes, and produced all agricultural products available within British Columbia including fruit, vegetables, nuts, eggs, poultry, meat, fish, dairy, and honey.

The interviews with managers in Metro Vancouver initially occurred during the first weeks of 2017 and additional interviews occurred in March of 2019 with managers province-wide during the BC Association of Farmers' Markets Annual Conference.

For farmers' market and food bank managers, three in-person interview meetings were arranged and six phone interviews were conducted initially in 2017. In 2019, 29 farmers' market managers were interviewed from areas throughout B.C.

### **Target Population: Food Banks and Other Food Organizations**

After hearing many farmers in the towns of Abbotsford and Chilliwack speak of food bank and/or non-profit trucks coming to their farms weekly to collect produce, two workers at these food banks in 2017 were interviewed with the same questions asked of market managers. In March of 2019, additional food bank and food security workers were interviewed and food provided to a recipient family was tracked. Food received from a small, medium and large food distribution operation was recorded in March and April 2019 to document the fresh produce and other agricultural products being distributed.

For food bank managers, two phone interviews were arranged and conducted initially. Everyone contacted agreed to participate. During these interviews, a number of different models of donation were described by the managers. In each of the models that were observed, the farmer and charity organization each had a different responsibility for the harvesting and transport of the food for donation. In one, Farm to Food Bank, the charity was responsible for both the harvesting and transport to the food charity. In another, the farmer was responsible for harvesting and the food charity was responsible for the full transport. In two, Sharing the Bounty and Food Recovery Program, the farmer was responsible for harvesting and transport to a location of potential sale and then the charity was responsible for the transport to the food charity. The strong knowledge base of the food workers led to more surveying of managers.

## **Participant Observation**

The researcher was invited to participate in numerous models of donation as a volunteer. This led to the researcher directly observing food donation models including produce delivery and gleaning. In all cases, the researcher participated in the donation, spoke with other participants about the Farmers' Food Donation Tax Credit, and took notes.

## **Instrument Design: Farmer Surveys**

The initial farmer survey in 2017 consisted of 37 questions, focused on past food donations, tax credit usage, and future intentions. The survey intent was to discover if the food donation tax credit influenced farmers' decision making relating to donating food, and to explore barriers to both donating and claiming the tax credit. The survey branched to ask relevant questions depending upon the answers received. Question formats consisted of a mix of multiple choice, matrix table, and open-ended. The survey was conducted in person, via phone, and on-line via email with eighteen valid farmer responses. Survey questions focusing on donations relied upon research by Bekkers and Weipking (2011), who reviewed over 500 articles on philanthropy and identified eight mechanisms which drive charitable giving by individuals: (a) awareness of need; (b) solicitation; (c) costs and benefits; (d) altruism; (e) reputation; (f) psychological benefits; (g) values; (h) efficacy.

The second farmer survey in 2019 consisted of 14 questions, a subset of the original 37, and focused on food donations and tax credit usage from 2016 to 2018 (See Appendix N). The survey intent was to discover if awareness of the credit had grown, if farmers were claiming the credit, and if farmers had plans to donate and use the credit in the future. Question formats used the same wording as from 2017 and again consisted of a mix of multiple choice, matrix table, and open-ended. The shorter survey was emailed to farmers in April 2019.



### **Instrument Design: Manager and Food Organization Surveys**

The market manager full survey consisted of eighteen open-ended questions, with no branching, to be answered in short interviews (See Appendix O). Interviews in 2017 were conducted in person with three Artisan Market and food bank managers, and via phone with four managers. Two food bank managers also answered the questions on the manager survey, both via phone. The respondents were from seven different farmers' markets in the Metro Vancouver area, so representing nearly 30% of the 25 markets in the area. Interviews in 2019 used two of the same survey questions and were conducted in person with 29 managers from across the province of B.C. at the BC Association of Farmers' Markets Annual Conference in Kimberley. This represents 20% of all farmers' market managers in B.C. The questions asked were "Are you aware of the farmers you work with at your organization donating fresh food?" and "Are you aware of the B.C. Farmers' Food Donation Tax Credit?"

### **Instrument Design: Recording Food Distributions**

For a two month period, in March and April of 2019, the researcher collected food as a customer at three food distribution locations and recorded the amounts received, with a focus on fresh produce. The locations selected varied greatly in size. A small non-profit distributed from one location and served approximately thirty pickups per week in a two hour period. A medium-sized charity provided both emergency food pickups and grocery shopping for \$1 in an on-site store once a month. A large food bank with multiple distribution locations in three municipalities served nearly 30,000 recipients every week.

### **Permission**

In order to conduct research with farmers and managers at Artisan Farmers' Markets as a whole, I obtained permission from the Board of Directors by sending an email (See Appendix P).

Before contact with any individual, I also obtained individual consent using either a written or spoken script, customized for farmers or market and food managers (See Appendix Q and Appendix R). The initial farmers' market managers' script was reused for community food organization managers. Farmers and managers who participated in person signed a consent form (See Appendix S and Appendix T). A separate email was created for farmers who were emailed the survey (See Appendix U). No humans beyond the researcher were involved in tracking food donations. See Appendix V for the provided method descriptions relating to food tracking. All original, expanded, and longitudinal methods for this study were reviewed by Colorado State University's Institutional Review Board and exempted (Appendix W).

### **Design**

This research was designed to gather farmers' past and future donation history and intentions, reasons behind donation decisions, and demographics. It was also designed to involve non-farming third parties to gauge awareness and involvement with the new B.C. tax credit. These individuals work in roles at farmers' markets bringing farmers together on a regular basis to sell directly to consumers, at food banks providing food charity, and at community organizations providing food assistance to those in need. Finally, it was designed to observe existing food donation and distribution practices to see how donated food flows and provides food security support.

### **Analysis**

Data analysis involved consolidating and organizing the farmers', market managers', and food bank managers' responses. The most frequent identical answers were analyzed and ordinal rankings were constructed. Individual comments were coded by themes identical to survey

responses and counted. Many individual quotes were also recorded and considered in the conclusions and recommendation.

### **Farm Demographics from the 2017 Survey**

In British Columbia, small farms and direct marketing play a large role (Small Farms, 2017). Over 40% of small farms with less than \$10,000 in receipts sell directly to consumers, and small farms themselves make up 40% of all farms. As per the 2016 Census of Agriculture, small farms are more numerous in British Columbia than anywhere else in Canada.

The farmers' market farmers surveyed in 2017 have diverse businesses with the following characteristics (See Table 4 and Figures 19-23). Farmers in 2019 were not surveyed on their demographics.

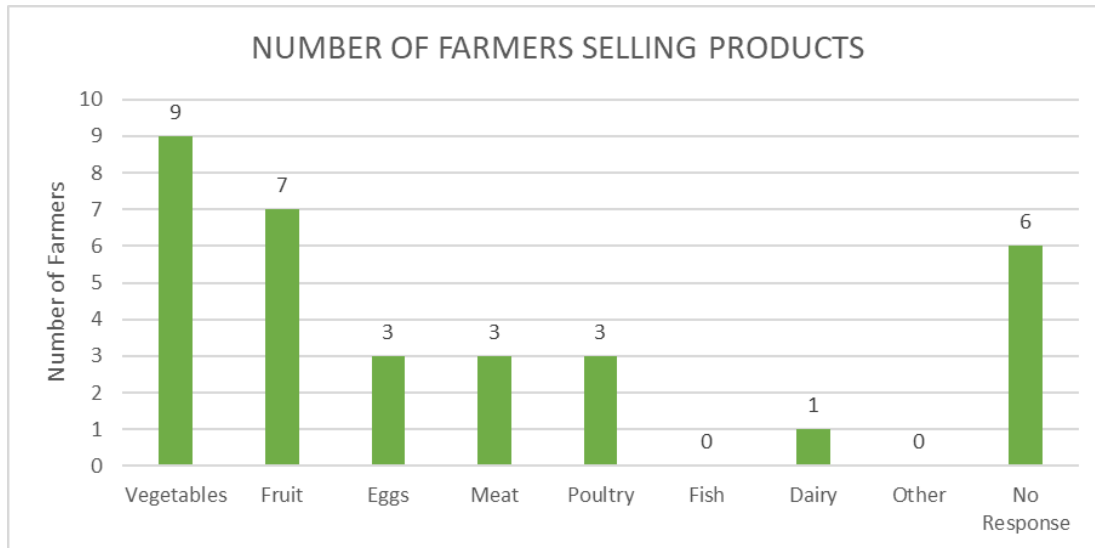
Farmer were asked "Please describe how much land you cultivate/manage. Including: What is the size of the total land base/parcel you have access to? (acres) and How much total land do you cultivate or pasture? (acres)" (See Table 4).

Table 4

#### *Acres in Use and Acres Available*

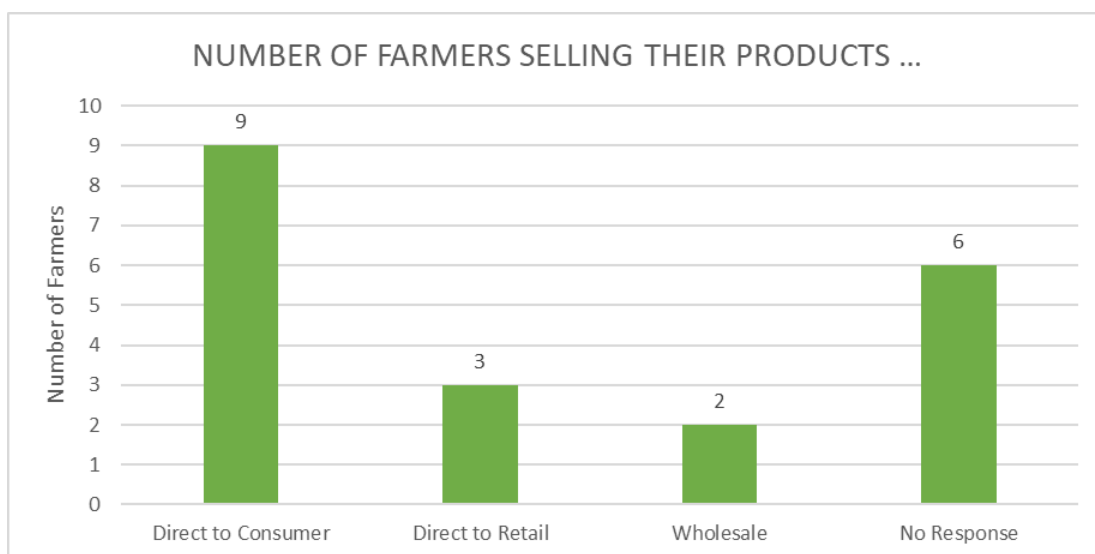
| <b>NUMBER OF FARMERS</b> | <b>ACRES OF CULTIVATED LAND</b> | <b>ACRES OF AVAILABLE LAND</b> |
|--------------------------|---------------------------------|--------------------------------|
| 1                        | 0.75                            | 0.75                           |
| 2                        | 1                               | 1                              |
| 3                        | 2                               | 2                              |
| 1                        | 4                               | 4                              |
| 1                        | 4                               | 5                              |
| 1                        | 5                               | no response                    |
| 1                        | 7                               | 10                             |
| 1                        | 7                               | 50                             |
| 1                        | 25                              | 25                             |
| 1                        | 29                              | 40                             |
| 5                        | no response                     | no response                    |

Farmers were asked “Please indicate which of the following agricultural products you produce (mark all that apply) and indicate how many edible varieties of each you produce:” and given choices of “Vegetables, Fruit, Eggs, Meat, Poultry, Fish, Dairy, and Other” (See Figure 9).



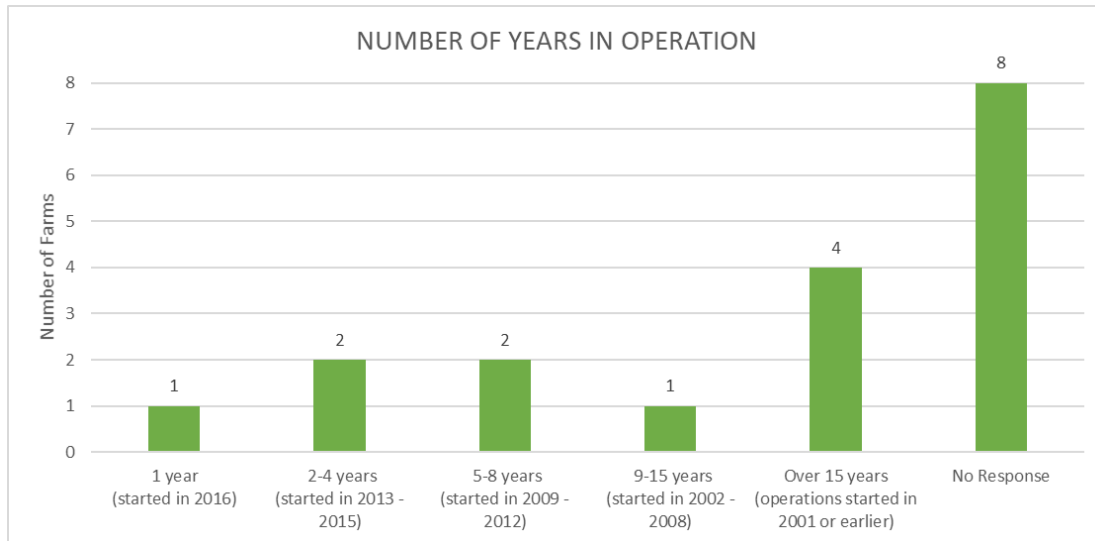
*Figure 9. Products farmers are selling*

Farmers were asked “Which of the following marketing channels do you use?” and given choices of “Direct to Consumer, Direct to Retail, Wholesale, and Other” (See Figure 10). One farmer sold to all three channels.



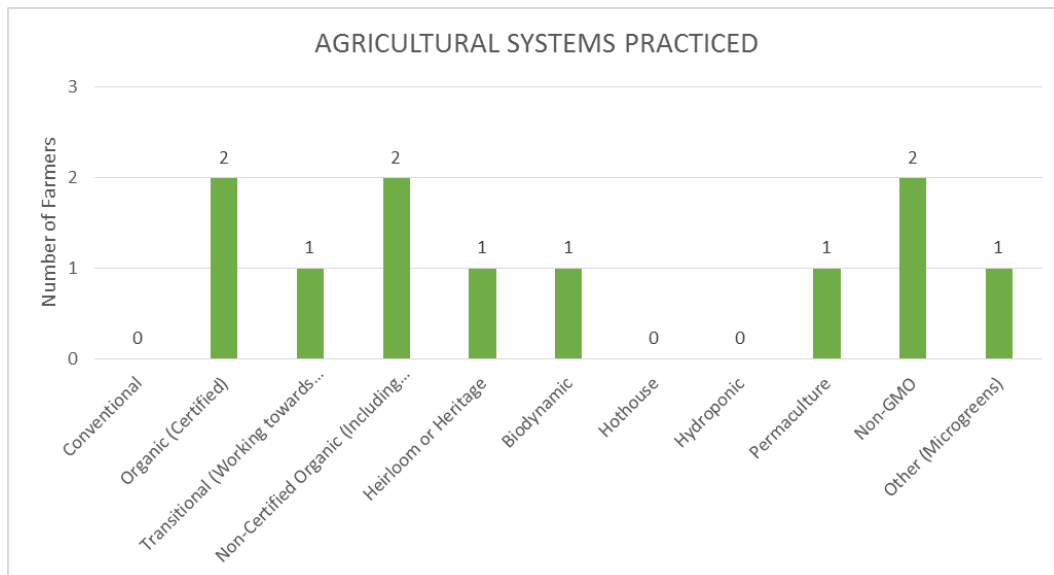
*Figure 10. Marketing Channels Used*

Farmers were asked “For how many years has this farm been in operation?” and given choices of “0 years (this is the first), 1 year (started last year), 2-4 years, 5-8 years, 9-15 years, and Over 15 years” (See Figure 11).



*Figure 11. Age of Farm Operations*

Farmers were asked “Which of the following agricultural systems do you practice on your farm? (Mark all that apply.)” and given choices of “Conventional, Organic (Certified), Transitional (Working towards Organic Certification), Non-Certified Organic (including Integrated Pest Management techniques), Heirloom or Heritage, Biodynamic, Hothouse, Hydroponic, Permaculture, Non-GMO, and Other (Please specify)” (See Figure 12). One farmers practiced both organic (certified) and biodynamic and eight farmers did not answer this question.



*Figure 12. Growing Systems Practiced*

The 2019 farmers’ survey did not ask demographic questions.

## **CHAPTER 4: RESULTS**

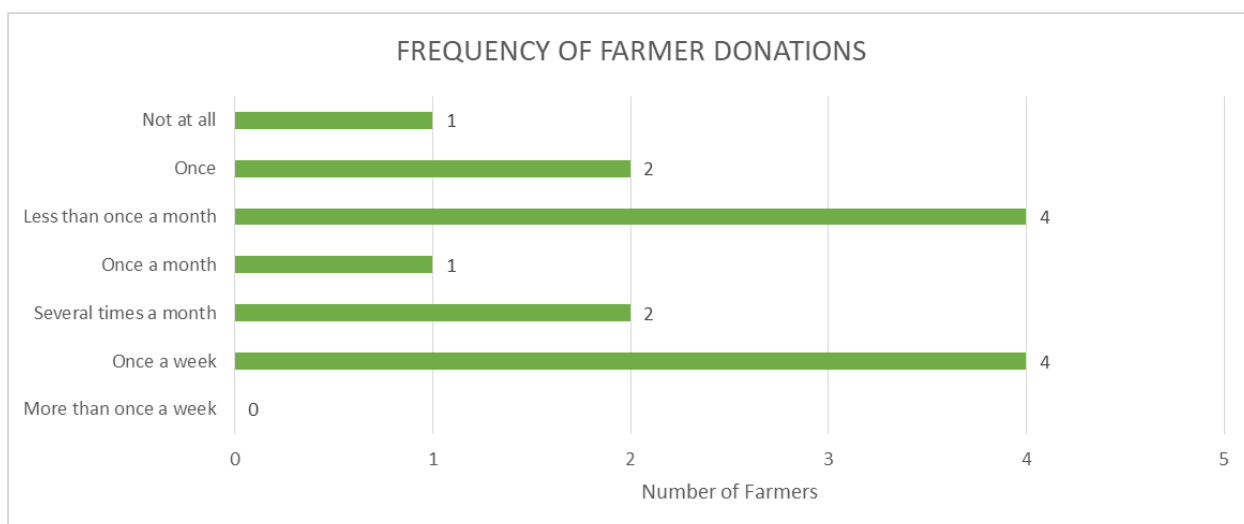
Throughout the surveying and interviewing process, specific methods of donation already connecting excess farm fresh food with charities were noted. In addition to the surveying and interview process, three of these donation methods were observed as mini-case studies. The food being distributed was also observed and recorded. Results span the time period from 2016 to 2019, with two collection periods of spring 2017 and spring 2019.

### **Survey Results**

#### **Frequency of Farmer Donations in 2016**

Farmers were asked “In 2016, how often did you donate fresh edible agricultural products?”

As a whole, farmer respondents varied in their donation practices with “Less than once a month” and “Once a week” tying for the most frequent donation patterns throughout 2016. No farmers donated more than once a week and two could not recall how frequently they donated, but knew that they had donated in 2016. Sixteen valid responses were received. (See Figure 13). In this sample, every farmer except for one had donated in 2016. Considering only those farmers who donated, the percentage who donated frequently, once a month or more, was 46.67%; 95% CI, 22% - 72%.



*Figure 13. Number of farmers reporting each frequency of donation*

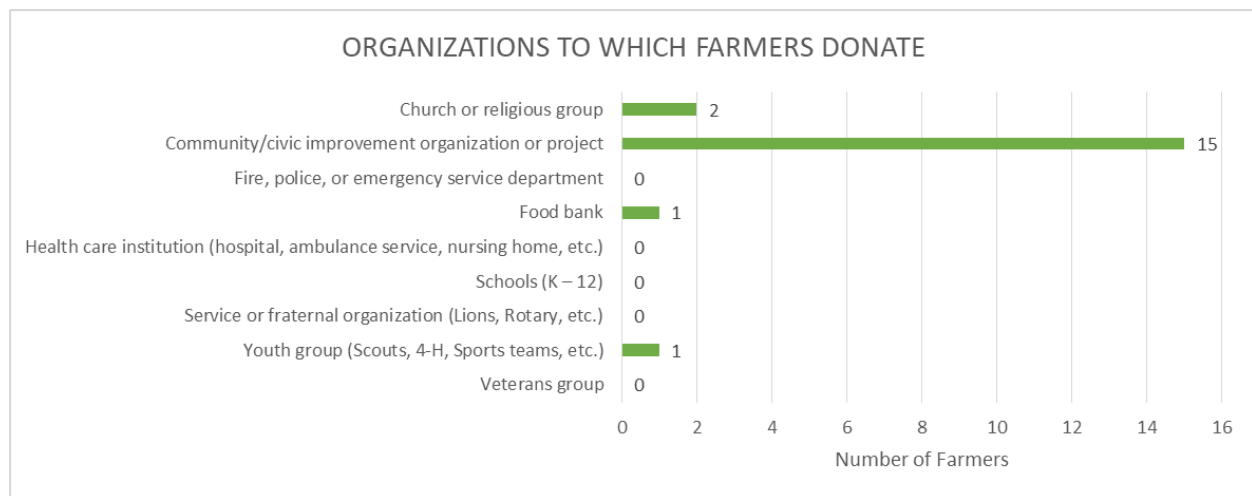
The one farmer who did not donate in 2016 had donated weekly in past years. This farmer did not donate in 2016 because “I have tons of people like you calling me, but no one picks up anymore” directly from the farm as they used to. This farmer responded that their reason for not donating was that “it is not conveniently picked up for me” and that now what they were doing was “selling seconds, feeding animals, and dehydrating as much as possible before composting”.

### **Organizations to Which Farmers Donated**

Farmers were asked “Thinking of the products you donated in 2016, to which of the following local community organizations, causes, or charities have you donated fresh agricultural products? (Please choose all that apply.)” and given a choice of “Church or religious group; Community/civic improvement organization or project; Fire, police, or emergency service department; Food bank; Health care institution (hospital, ambulance service, nursing home, etc.); Schools (K – 12); Service or fraternal organization (Lions, Rotary, etc.); Youth group (Scouts, 4-H, Sports teams, etc.); Veterans group; and Other (please specify)”.



By far, the most frequent organization receiving farmer food donations was a community or other community organization/project (See Figure 14).



*Figure 14. Type of organization to which seventeen farmer donated in 2016*

All but one of the farmers only donated to one type of organization. This one farmer donated to three different types of organizations. Specific donations took the form of supporting “hampers for charity silent auctions”, “gift certificates for later collection of food”, “how to can tomatoes sessions”, “I’ve given to the arts council and restorative justice”, “the Downtown Eastside Women’s Centre”, “monthly dinners open to women and children in need of a hot meal in our local community”, “poverty reduction in the form of a social housing food distribution project”, and “smaller things when people call”.

During the in-person and phone conversations, this question sparked many comments beyond the information asked for in the survey. One farmer began speaking of how he preferred “to feed humans as opposed to chickens”, but it was hard. Common barriers brought up included the fact that: they donated as much as possible to their friends, relatives, and neighbors, but there was way more excess food that was too small, slightly blemished or cracked than people they personally knew (6); they were asked to donate at the wrong times (5); the hours during which

one could donate were too limited (3); the inconsistency of past programs coming and going at organizations where they used to drop off food made them less willing to get involved with donations (3).

### Farmers' Reason for Making Agricultural Donations

Farmers were asked “Farmers choosing to donate agricultural products do so for many reasons. How important are each of the following reasons in motivating you to donate? (Please rate each line) as Not at all Important, Slightly important, Moderately important, Very important, or Extremely important” and given a choice of “Being asked to give, Getting recognition from your community, Helping people in need, Observing religious obligations (tithing), Preventing food waste, Receiving tax benefits, Wanting to give back to your community, Other (please specify & rank)”

When asked about their reasons behind why they donate, farmers overwhelmingly selected “Wanting to give back to my community”, with 94% (16) saying this reason was moderately, very, or extremely important. Giving back to the farmers’ community was also the most extremely important reason, selected by 71% (12). See Figure 15.

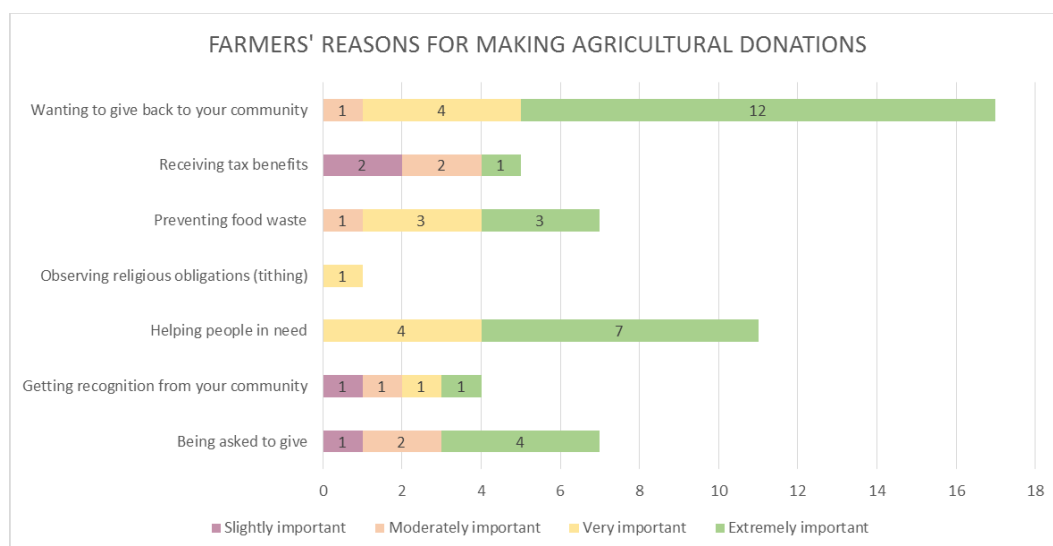
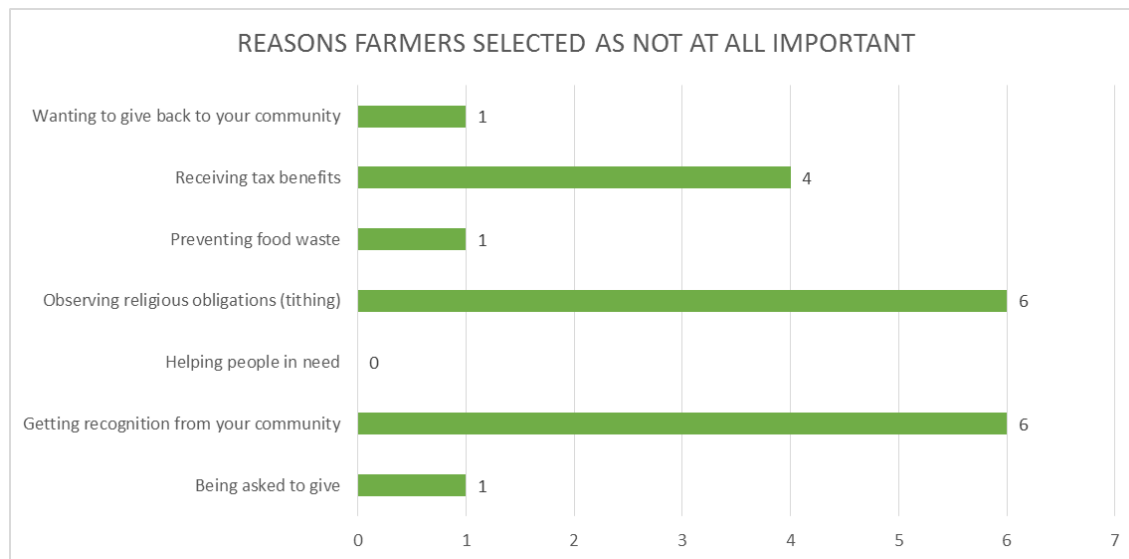


Figure 15. Donating farmers’ reasons for making agricultural donations

On the opposite side of the spectrum for reasons considered not at all important to farmers when considering donations, there was a tie between “Getting recognition from my community” and “Observing religious obligations (tithing)” with 35% of donating farmers, each, selecting these. See Figure 16.



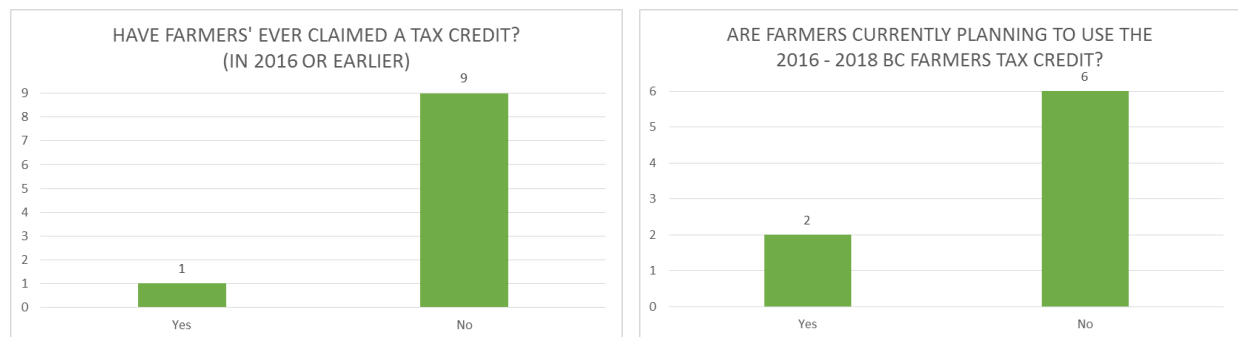
*Figure 16. Items that were not at all important to donating farmers*

### **Farmers’ History and Future of Claiming Tax Credits**

Farmers were asked “If you have ever donated fresh agricultural products in the past, have you ever claimed a charitable tax credit for your donations?”, “Are you planning to use the 2016 – 2018 B.C. Farmers’ Food Donation Tax Credit this year?” and for farmers who had never used the tax credit, they were also asked “There are many reasons why farmers who donate edible agricultural products do not claim charitable tax credits. What is the main reason why you have not?”

Respondents primarily had no experience with tax credits, with nine farmers saying they had never used a tax credit, eight leaving the question blank and only one farmer indicating that they had used a tax credit in the past (See Figure 17). Of the ten farmers who answered the

question, 90% had never claimed a tax credit in the past and 60% did not plan to use the 2016 – 2018 B.C. Farmers’ Food Donation Tax Credit.



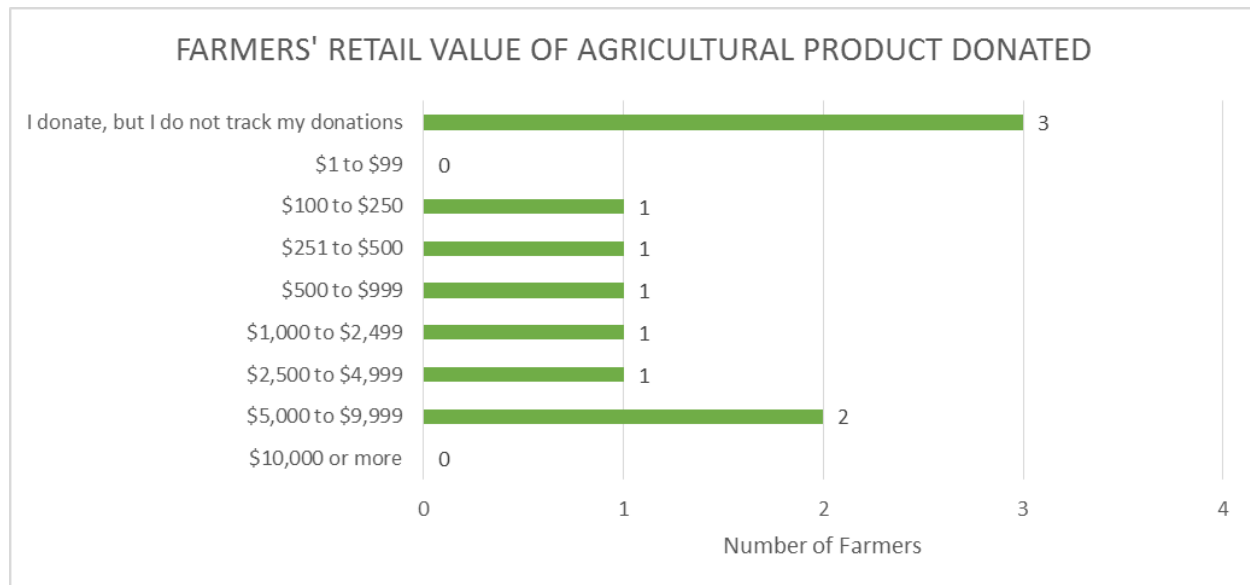
*Figure 17. Farmers’ past choices and future intentions to use a tax credit (with 8 farmers and 12 farmers not responding, respectively)*

For those farmers who had never claimed a tax credit, the primary reason selected was they did not know they could claim a credit (4), did not know the steps required to claim a tax credit (2), did not track the amount they donated (1), and donated to an organization which did not provide tax receipts (1). In addition, two respondents had write in answers saying “I did it just to be nice and do my part” and “I don’t believe farms should receive a tax credit for food products. They have already claimed their input costs as expenses. In addition, some of our customers financially support us to make donations to the public.” The same eight respondents who left the question on if they had ever used a tax credit blank left this question blank.

### **Retail Value of and Tax Credit for Agricultural Products Donated**

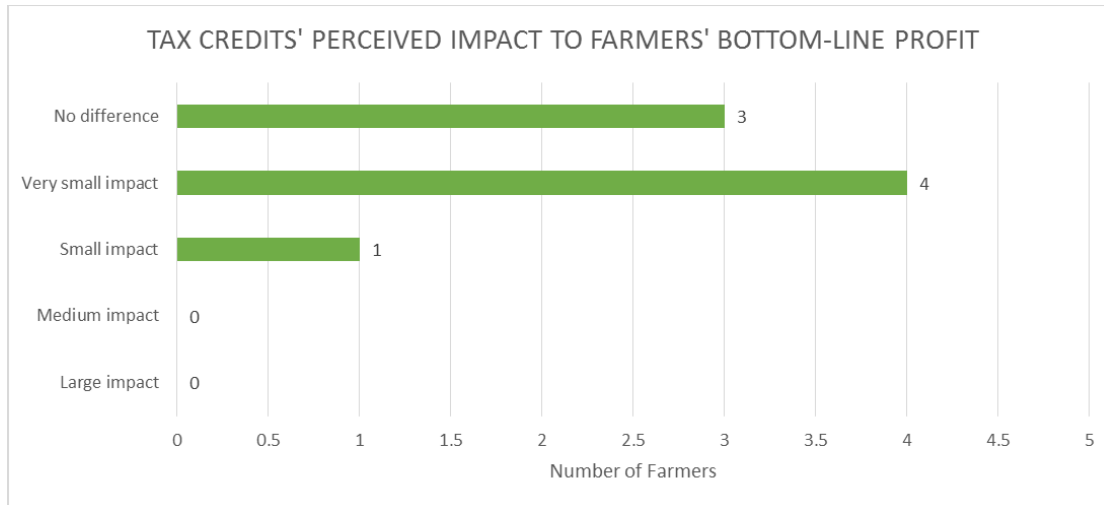
Farmers who had donated produce in 2016 were asked “In 2016, what was the approximate retail value of the edible agricultural products you donated?” and “Considering the financial impact of a 25% non-refundable tax credit, how much of a difference do you perceive this would make to your bottom line profit?” and given choices of “No difference, Very small impact, Small impact, Medium impact, and Large impact”.

The value of retail product donated in 2016 by farmers varied from between \$100 and \$250 to \$5,000 to \$9,999, with 10 of 17 donating farmers answering this question (See Figure 18).



*Figure 18. Known retail value of agricultural products donated by seven farmers*

The average of the mid-ranges of all donations is \$3,097. Given that donating \$1,000 in retail value of eligible agricultural products results in a non-refundable tax credit of \$377.72, this is an average non-refundable tax credit of approximately \$1,170. At the high end, for the two farmers listing a retail value of donated products at \$5,000 to \$9,999, this is a non-refundable tax credit of between \$1,889 and \$3,777 assuming none of the income limits for the tax credit are exceeded. Both farmers in the \$5,000 to \$9,999 category of retail donations indicated that the B.C. Food Donation Tax Credit would make “No Difference” to their bottom line profit. None of the eight respondents said the tax credit would make more than a “Small impact” to profits (See Figure 19).

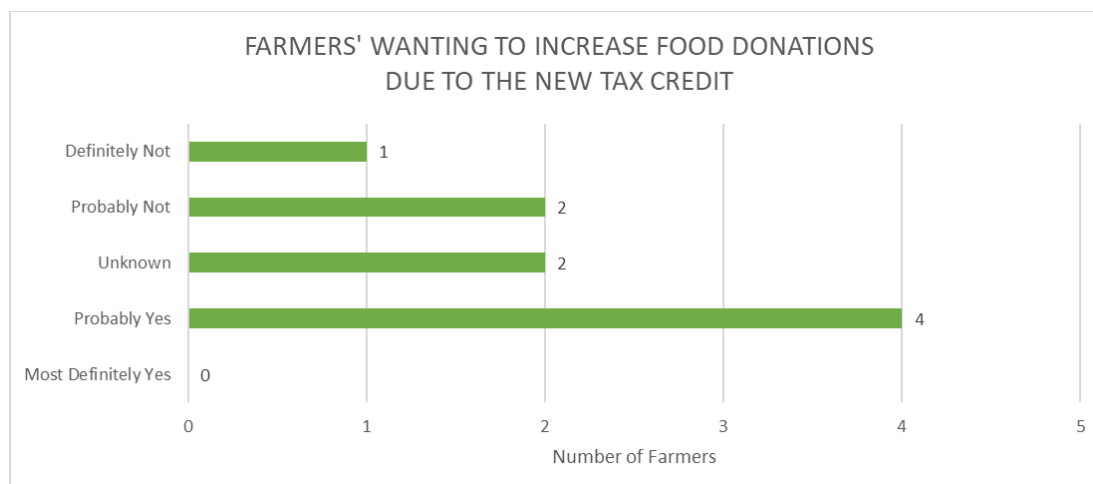


*Figure 19. Perception of profit impact if using the B.C. Farmers' Food Donation Tax Credit*

### **Farmers' View on the Tax Credit Increasing Their Food Donations**

Farmers were asked “Given the B.C. Farmers’ Food Donation Tax Credit enables you to receive additional non-refundable tax credits of 25% of retail value for all agricultural products donated to charities, will this new tax law result in an increase in your food donations?”, provided choices of “Most definitely yes, Probably Yes, Unknown, Probably Not, and Definitely Not” and asked to answer an open-ended questions of “What is your primary reason for the above decision?” and “Are there any additional reasons for the above decision? If so, please specify.”

Of the nine respondents, one farmer was confident that the new tax credit did not result in them wanting to increase food donations. An additional two said “probably not” and two more were “unknown”. A total of four farmers indicated that the new tax credit would “probably” increase their food donations (See Figure 20).



*Figure 20. Farmers' responses to if the tax credit would increase their donations*

Individual responses related to the tax credit increasing their donations included the following reasoning: “We were already donating vegetables before we heard about the tax credit but this makes us even more likely to do so.”, “Last year our decisions on what to donate was influenced by a couple factors - we were raising pigs who could eat the leftover veggies and we also considered the leftover veggies to be organic matter that originated from and are best returned to our farm. This year we won't be raising pigs but the loss of organic matter is still a consideration - the new tax credit makes it more likely that we will donate vegetables in spite of this.”, “Whilst not motivated by fiscal reasons, it would be useful to be able to offset donation value against our tax bill.”, and “We should take advantage of every financial incentive available in order to make small family farms more sustainable”. Farmers who were not influenced by the tax credit stated: “We donate what we can, based on excess production. It still costs us to grow, so we need an income, not a tax credit, to make ends meet.” and “We are happy to donate any extra food we have regardless of receiving any benefits for it, and often there is not time to dedicate to tracking what is donated. We are also a small business and do not produce a large amount of extra food, but if we expand and it becomes beneficial to us to track what we donate

and claim it, we would probably do so.” And, for one farmer who was not influenced, it came down to “Availability of product to donate.” Other factors related to being able to increase donations included: “Ease of donating” and “whether recipient needs it.” And, a final comment reflected upon the overall tax liability of B.C. farms: “2016 was the first year that B.C. farms (in total) registered a surplus after depreciation of capital assets. As a result, there aren't a lot of farms that have needed tax credits to offset taxation.”

### Unsold Agricultural Products and the Reasons

Farmers were asked “What proportion of your cultivated area used for growing or raising products originally intended for human consumption do you estimate will not be sold for human consumption in 2017?”

Respondents listed many reasons why products were not sold. On all farmers’ farms, the maximum amount not sold was up to 30%, and two farms reported complete sales, with no product unsold (See Figure 21).

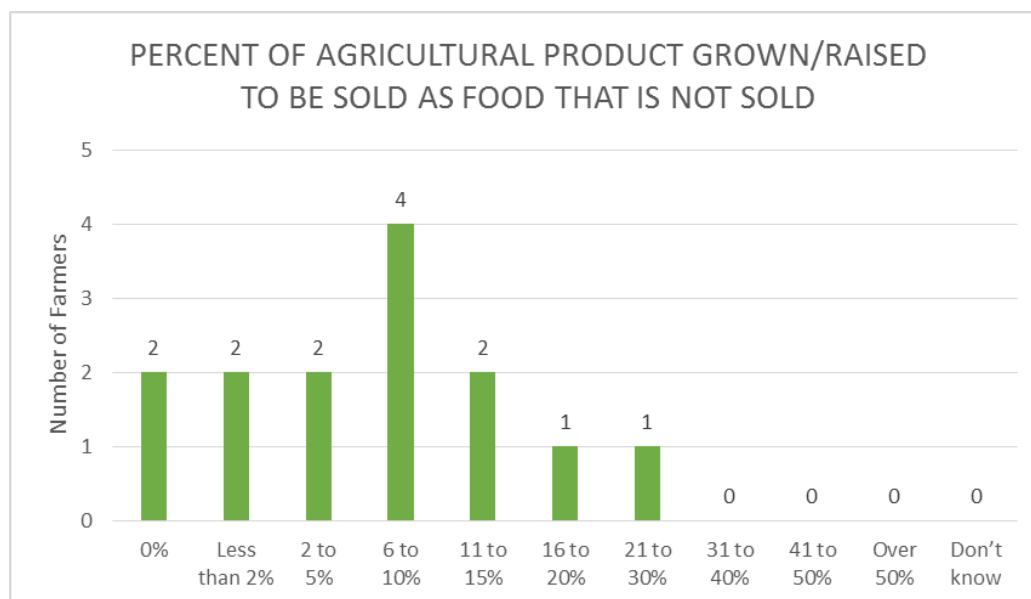
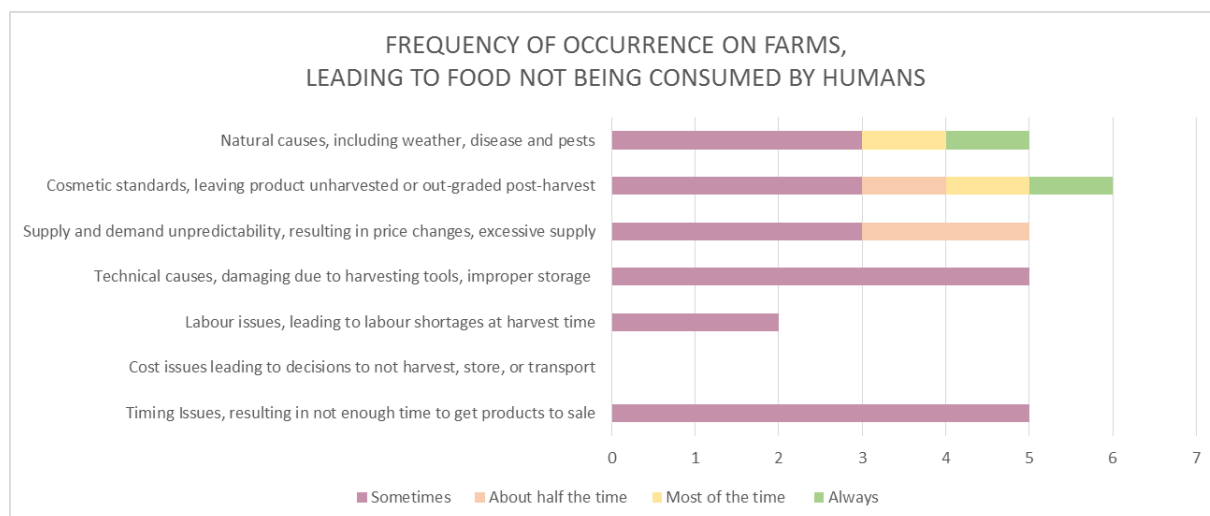


Figure 21. Percent of Unsold Agricultural Products



Farmers were asked “Thinking about a mature crop, there are many reasons why fresh agricultural product suitable for human consumption does not go to human consumption. How frequently do these reasons occur at your farm? (Please rate each line.) as Never, Sometimes, About half the time, Most of the time, or Always” and provided reasons including “Natural causes, including weather, disease and pests; Cosmetic standards, leaving product unharvested or out graded post-harvest; Supply and demand unpredictability, resulting in price changes, excessive supply; Technical causes, damaging due to harvesting tools, improper storage; Labor issues, leading to labor shortages at harvest time; Cost issues, leading to decisions to not harvest, store, or transport; Timing Issues, resulting in not enough time to get products to sale; and Other (please specify)” in addition to open-ended questions of “Do any of the above categories overlap? If so, please explain” and “If you wish, please further describe reasons why food suitable for human consumption is not consumed by humans at your farm:”

The reasons for agricultural products being unsuitable for human consumption are varied and include those seen in Figure 22.



*Figure 22. Reasons for agricultural products being unsuitable for human consumption*

### **Farmer Survey Results from 2019**

In April of 2019, the same farmers were again emailed a survey. As of mid-April, no responses have been received. The 2019 questions relate to past and future donations, tax credit usage, and food loss.

### **Food Distribution Results from 2019**

The researcher collected food as a community member on 14 different occasions from three organizations. Six pick-ups were from a small non-profit emergency food program helping approximately 30 families monthly, two pickups were from a medium-sized charity helping 1,000 people monthly, and six pickups were from a charity food bank helping nearly 100,000 people monthly. The amounts of fresh produce being distributed for two adults and two children varied greatly among the three food organizations.

The smallest non-profit organization distributed a variety of produce weekly that was always fresh, never canned, never dried, and never frozen. A week of food consisted of approximately twenty produce pieces of fresh fruits and vegetables. This small non-profit also provided at least two frozen, non-processed meat products weekly. Over the course of six pickups, the following fresh agricultural products were received, with all meats frozen: apples, bananas, beef, bok choy, cabbage, cauliflower, chayote, chicken, cucumbers, garlic, eggplants, lamb, lemons, peppers (red, yellow and green), pork, onions, potatoes, tomatoes, and zucchini. Fresh bread, baked sweets, yogurt, milk, and cheese were also received weekly. All items received were in good to fair condition, with up to 30% of the vegetables and fruits looking slightly blemished. The single pickup point was a gymnasium in a church with boxes labelled by name. At home, the agricultural products stored in a refrigerator remained fresh for at least a week.

The medium-sized charity had two programs from which the researcher collected food. The first, an emergency food program, provided two plastic grocery bags of canned and boxed goods plus fresh bananas, carrots, onions, and potatoes. The second, a monthly support program, required a \$1.00 payment and included an hour of shopping in a small grocery-store setting. The researcher shopped to a provided list which itemized, by category, the number of canned, boxed, and bagged foods to choose based upon family size. The list also offered that an unlimited amount of fresh produce could be chosen. The variety of fresh produce available rivaled a grocery store's produce section and was displayed in an open front cooler. Upwards of 75% of the agricultural products had visible blemishes and bagged salads were past their sell-by-dates. A limited supply of dairy and meat items were also available by choice, with all but one dairy item past its sell-by dates. The researcher, shopping for two adults and two children for a month, received seven banana boxes full of food. At home, a number of the agricultural products stored in a refrigerator became inedible in just a few days due to surface mold growth.

At the large food bank, shelf stable produce, including potatoes and/or onions, was received every week in abundant quantities of at least eight potatoes and/or eight onions. There was also a single additional produce item available every week, which rotated. Oranges were available some weeks and apples were distributed other weeks. On one occasion, a cucumber was received and on another occasion, three garlic bunches were received. On most visits, the researcher counted the allocated number of produce pieces out from a box containing many pieces. This allowed the researcher to choose the best non-molded, non-blemished, non-dented, non-scarred pieces of produce out from the damaged produce. At one visit, large numbers of visibly inferior onions were separated from the main onion box and were available to take in unlimited quantities. Except for the garlic, all produce boxes contained visibly marred items. In

addition to the agricultural products distributed free of charge, at three food bank locations visited, a single table held a small variety of fresh produce for sale. These items were selling below market price. For example, red peppers selling at \$75 for a bag of four, green onions selling for \$0.50, cilantro selling for \$0.25. The selection and price of these products was different at each location. The researcher also received fresh eggs on two occasions, learning that eggs are distributed once a month. Additional food received included milk once a month, canned vegetables weekly, canned protein weekly, choice of snack foods or cooking ingredients weekly, canned soup and beans plus bread, frozen meals, and soup occasionally. Food pickups were at six of the many different food bank locations and each location was different, some had long lines, others had no lines; some offered hot meals others didn't. At home, produce inadvertently chosen with blemishes began molding almost immediately; however, other produce lasted weeks and weeks until numerous dishes with potatoes and onions were prepared.

### **Organization's Connection to Farmers' Food Donations**

The 2017 interviews were initially focused on if the interviewed manager knew if any farmers they worked with donated food. Subsequent questions focused on if those farmers ever spoke of the reasons why or why not they donated food (See Table 5). All but one manager, 89%, had a connection to farmers making food donations. Explanations heard included "Years ago, I organized for end-of-market donation pickups", "Farmers want to get rid of what they don't sell. If not, it's a burden to take back to the farm. And, they want to give to specific charities, specific purposes.", "At other farmers' markets I hear there is a regular pick-up at end of day to support feeding people and dealing with the excess.", "Donations have to be right at the end, people are tired and want to go home, not deal with another step of taking to the accepting organization.", and "Farmers face so many barriers when donating: driving to take it there, they

don't know where to go, they don't have time to take it, and then the place might even have open hour when the farmer wants to donate". One respondent's "Yes" answer was expressed in the negative "Yes, I'm aware that the farmers are not donating food."

Table 5

*Organization's Connection to Farmers' Food Donations in 2017*

|  | <u>Yes</u> | <u>No</u> |
|--|------------|-----------|
| 1. Are you aware of the farmers you work with at your organization donating fresh food?                    | 8          | 1         |
| 2. Do you ever speak with or hear farmers talking about their underlying reasons for donating edible food? | 7          | 2         |
| 3. Do you ever speak with or hear farmers talking about their barriers to donating edible food?            | 7          | 2         |

In 2019, 59% (95% CI, 41% - 77%) of respondents were aware of farmers donating fresh food. With these 17 out of 29 market managers, many methods of donation were discussed, including partnerships with local community organizations (5), food banks (3), individual volunteers (3), church groups (2), gleaning groups (1), emergency food aid organizations (1), church groups (1), and food recovery groups (1). In one instance, a refrigerated truck had been donated by Monsanto to a local food action committee forming a food recovery group. When discussing reasons why farmers were not donating, the twelve responses primarily focused on there being no left over agricultural products to give (7) as well as on volunteer resource constraints (5). In one location, Creston, volunteers were incentivized to help with gleaning by being provided with a third of the gleaned product. A third went to the farmer and a third to the non-profit food organization. One market manager was enthusiastic about encouraging farmers to donate food at

the end of the market, due to the large number of panhandlers in her market. She believed that by scheduling end-of-market donations, this would provide a strong community benefit.

In 2019, for the 12 respondents who did not know of their farmers donating, most did not know why (7) and others said there were no leftovers (4). One manager of a small market in a small town indicated that there was lots of sharing among the farmers at the market itself, but no donating outside of the vendor community.

### **Organization's Awareness of Tax Credit**

In 2017, most (78%) of the market managers who knew about the credit remembered hearing about the tax credit through written communications coming from the Ministry of Agriculture (See Table 6). One person heard of the credit at the 2016 BC Association of Farmers' Market Annual Conference. A minority (38%) of those who knew about the credit found it to be a useful tool to support additional donations. There was consensus (100%) among market managers that the tax credit's effectiveness could be improved by acknowledging the amount spent on transport, agreement (63%) that effectiveness could be improved by making the credit refundable, and only limited support (25%) for increasing effectiveness through acknowledging labor costs.

Table 6

#### *Organization's Awareness of Tax Credit in 2017*

|   |   |           |              |
|---|---|-----------|--------------|
| 1. Are you aware of the B.C. Farmers' Food Donation Tax Credit, unveiled in February 2016?              | Yes<br>(8)  | No<br>(1) | Blank<br>(0) |
| 2. If yes, please explain how you remember learning of this credit.                                     | Ministry/Government Communication (7)<br>Conference (1) |           |              |
| 3. In your opinion, is the tax credit a useful tool to support additional farm donations of fresh food? | Yes<br>(2)  | No<br>(5) | Blank<br>(1) |
|   | For some (1)  |           |              |

|  |     |      |       |
|--|-----|------|-------|
| 4. Do you think the tax credit could be more effective if:   | Yes | No   | Blank |
| - the amount spent on transportation was acknowledged in the credit?   | (8) | (0)  | (1)   |
| - the amount spent on additional labour was acknowledge in the credit?   | (2) | (6)  | (1)   |
| - some part of the tax credit was refundable?  | Yes | No   | Blank |
| - other?   | (5) | (3)  | (1)   |
|  |     |      | Blank |
|  |     |      | (9)   |
| 5. Does your organization provide any support for farmers wishing to donate? If yes, please explain.   | Yes | No   | Blank |
|  | (2) | (7*) | (0)   |
| 6. Can you think of ways that either the government or your organization could incentivize farmers to increase donations? Please explain, especially the methods you view as most effective. | Yes | No   | Blank |
|  | (6) | (1)  | (2)   |

\* 2 organizations had provided support for farmers wishing to donate in the past, but not today

In 2019, there was less awareness (21%, 95% CI, 5%- 35% ) of the B.C. Farmers' Food Donation Tax Credit than in 2017 (89%). Only six of the 29 people interviewed knew of the tax credit's existence in 2019. Those who did know of the tax credit were actively collecting donations for charities at their markets and aware that the charity wrote a tax receipt for the farmer if the farmers wanted a receipt. One efficient method of collection, at Kelowna resulted in a response of "Yes, our farmers can claim that credit and even bring extra agricultural product to the market solely to which wasn't even for sale." Two different charities, one at Wednesday markets, and one at Saturday markets, distribute bins to the farmers at their stalls at the end of the market. Farmers fill these bins with items for donation and the charity takes care of the rest, tracking the donations, distributing the food to people in need, and providing the farmers with a donation receipt at the end of the season. Two market managers who had not heard of the credit, expressed surprise of learning of its aim, saying "But we ask so much already of farmers, why

are we now asking them to do more work to donate what they grow?” and “Our farmers would never participate since the food bank does not recognize the value of local food.”

In 2017, the majority of organizations (88%) did not provide support for farmers wishing to donate, though more (44%) have provided support if past years are considered. Programs were ended due to finding organizing donations to be too labor and time intensive or due to an accepting charity no longer accepting fresh produce donations. Most (67%) of the managers could think of ways to incentivize farmers. These included, primarily making the donation and claiming the credit easy/convenient/quick (100%), providing transport (56%), and informing farmers (22%). Specific comments related to the need for easy/convenient/quick donations and claims included “Money for transport would definitely be good, then the farmer could ship it down or rent a truck.” and “Then, the farmer would know they were getting something for the extra money being spent to donate.” Comments related to making the tax credit refundable were “This means the farmer would actually get something for the value of the product they are leaving.” An example of a support provided by an organization was described as “We refer farmers to organizations at our donation stations (these are small amounts now) and are unsure we can facilitate this if they grow.”, “We provided end-of-market pickups years ago.”, and “We helped by sharing the news from the Ministry on our social media.” One fact that stopped a past program is that “accepting organizations changed, so we had nowhere to take it afterwards.” One common theme about what more could be done focused on promotion is “We could promote it more.”, “I think we could motivate it more if we have farmers who have used it and they can demonstrate how it worked well for them. We could help share this story of effectiveness.” and “We could provide a receipt and make it easier for the farmer.”



## Organization's Education of Farmers

Table 7

*Organization's Education of Farmers in 2017*

|   |                                      |           |              |
|---|--------------------------------------|-----------|--------------|
| 1. Does your organization help to recruit, train or inform farmers of the tax credit? If so, how is this recruitment, education, training, and information conducted? | Yes<br>(2)                           | No<br>(5) | Blank<br>(2) |
| 2. What are examples of education, training or information have you provided in 2016? Plan for 2017?  | How to Use<br>(1)<br>Recovery<br>(1) |           | None<br>(7)  |

For the two organizations (22%) providing education to farmers, they both distributed information about the tax credit (See Table 7). One said “We’ve put it in our vendor bulletin” and the other said “We helped by sharing the news from the Ministry on our social media.” For 2017, two organizations have plans for a significant change. One farmers’ market is hiring a community engagement person, who will focus on creating resources to share about their donation stations. This will include “more written info on how to use”. Another farmers’ market has written a municipal grant proposal for a recover program to “enable us to help the farmer make donations by offering the recovery at the market.”

### Donation Observations

During the month of October, 2016, though no survey responses were collected, one farmer's weekly donation practice was observed. At the end of the Lonsdale Quay Farmers’ Market, a single volunteer from a local charity arrived and the farmer put 450 pounds (204 kilograms) of unsold vegetables into seven burlap bags, which the volunteer carried to their car. The volunteer then drove to the Grant McNeil Public Housing Development, a three minute trip

away, and distributed vegetables to residents. The farmer did not track the financial amount donated and the charity did not issue a tax receipt. The volunteer was present at the market for under five minutes and distributed free produce for thirty minutes. After observing the weekly donation, the volunteer's charity was contacted to learn more. The volunteer was a Canada Summer Jobs summer intern focused on food security through the Edible Garden Project's Sharing the Bounty program (Edible Garden, n.d.). The Edible Garden Project is a North Shore Neighbourhood House project working to meet the food security needs of vulnerable residents (Our Story, n.d.). The Sharing the Bounty program specifically moves fresh-picked food to people in need (Sharing the Bounty, n.d.). Whether from a backyard sharing garden, the Greater Vancouver Food Bank, or the Lonsdale Artisan Farmers' Market, the Edible Garden Project's goal is to enable residents to access healthy food with dignity. As the weekly volunteer was unable to deliver vegetables that upcoming weekend, the researcher was invited to be the volunteer and accepted. In under one hour, fresh, local, organic unsold vegetables from the farmer at the farmers' market were delivered to the nearby housing development 0.25 miles (0.4 kilometers) away in 3 minutes and distributed to residents for half an hour.

This same charity then invited the researcher to participate as a volunteer in a Farm to Food Bank gleaning day. The volunteer was invited, along with children, but no pets, to a farm an hour drive away in the rural community of Abbotsford. The gleaning occurred between 10AM and 12noon, rain or shine, and the list of expected produce to be harvesting included: Beets, parsnips, cabbage, cauliflower, broccoli, rutabaga, squash, pumpkins, spinach, and leeks. Upon arriving at the farm, the researcher and two children, aged 9 and 11 joined twenty two other individuals standing near a van and were instructed for 10 minutes by two leaders on how to harvest vegetables and provided with cardboard boxes previously used for grocery store produce.

All gleaners then dispersed into the farmer's fields and harvested produce for two hours, returning to the van or a pickup parked in the center of the field with full boxes and taking empty boxes to fill. The three volunteers harvested thirty one boxes of beets, brussel sprouts, squash, peppers, and zucchini in weather that was windy and raining. All volunteers continued to harvest and move their boxes to the van or pickup. Many more varieties of vegetables were in the field than had been originally described. At noon, filled boxes from all volunteers were loaded into the van for transport to the food bank and volunteers were asked if they wanted to take up to a third of the harvest home. The majority of volunteers declined taking produce. The researcher asked to take as many long-lasting vegetables as possible back to the charity in North Vancouver so volunteers loaded her vehicle to capacity with beets and squash. The two leaders checked through the field to ensure all items the gleaners had brought were removed and all volunteers left. The beets donated weighed 192 pounds (87 kilograms), and were canned for food bank recipients at Christmas time.

By the following year, in fall of 2017, the weekly donation from Lonsdale Farmers' Market to Grant McNeil Public Housing was no longer occurring due to lack of funding. However, the same farmer was continuing to donate at a different farmers' market, the Langley Community Farmers Market. In Langley, the produce donation program in 2017 was sponsored by a grant to the farmers' market. The Food Recovery Project ran for the very first year in the summer of 2017 and explored the best practices for connecting the farmers' market to charities serving food insecure individuals in the community (Food Recovery Program, n.d.).

In this program, partnerships were formed between food charities and market vendors. Charities that would benefit from receiving local healthy food were offered the chance to pick up unsold produce and other edible food immediately after the market closed from 4:00 to 4:30PM.

In return, the participating charities were asked to commit for the season, provide tax receipts, and write a brief report on their experience. One week a month, donated produce also went to cooking education provided at a Community Kitchen on-site at the market. Again, the researcher observed the donation process. On September 20, vendors brought donations and charity partners picked up the donations. Donations were from many vendors, not only farmers and included non-farm vendors such as bread sellers. The pickup process volunteer was tracking details like weight of food donated, frequency of charity pickups, and retail values through the use of dedicated bins per charity and invoicing. Volunteer were ensuring Food Safe practices throughout the process. This pilot program ran throughout the 2017 season. One participating charity, Ishtar Transition Housing Society, picked up food over numerous weeks and wrote a thank you letter in gratitude (personal correspondence with Cherise McGee on January 20, 2018). The donation program continued in 2018.

Also in the fall of 2017, an Okanagan farmer selling at the Lonsdale Quay Market was unable to donate as he had in the past due to the lack of human resources in the current year. This farmer had 8,000 pounds (3,628 kilograms) of apples to donate at the conclusion of his 2017 season. This was the first time the farmer had thought of claiming a tax credit for charitable donation. To gather data on the time and costs involved in an off-market donation, the researcher volunteered to go to his farm in Keremeos to pick up these apples for donation to a charity. On October 26, 2017, the volunteer drove 360 kilometers in 4.5 hours to the farmer's farm in Keremeos. The farmer had spent two hours harvesting 700 pounds (317 kilograms) of apples, the weight limit of the researcher's vehicle. He helped to load the apples into the volunteer's vehicle and explained how he felt he was benefiting from the tax credit due to the amount of tax savings exceeding the amount he could receive from a juicing company. The volunteer drove the apples

back to Metro Vancouver and donated them to the North Burnaby Neighborhood House where they were eaten within three days by school children and families attending a charity event. The donation tax receipt was received by the farmer on November 28 via the post. The farmer's retail price for apples was \$1.65 per pound. Donating 700 pounds (317 kilograms) resulted in a charity donation amount of \$1,155. The B.C. Farmers' Food Tax Donation Credit for 25% was worth \$288.75. The charitable tax donation was worth \$306.95 federally and \$150.51 provincially, for a total non-refundable credit of \$746.21. The cost of harvesting was \$18.89. The cost of the donation transport was \$111.09 in fuel and the human resource driving time was valued at \$124.85 at minimum wage of \$13.35 per hour or \$226.82 at a living wage of \$20.62 per hour. This is either a cost of donation of \$356.80 (31%) or \$254.83 (22%) cost of donation.

## **CHAPTER 5: DISCUSSION AND CONCLUSIONS**

### **Discussion for Practice**

From legislature discussions, the utilization of the B.C. Farmers' Food Donation Tax Credit in 2016 can be inferred to be well under a 1% utilization rate. Given that there are 17,528 farms in British Columbia as per the 2016 census, 175 farmers would represent only 1% (Small Farms, 2017). Only 30 individual farming tax payers claimed the credit and the number of corporate tax payers who claimed the credit is too small to disclose due to privacy considerations.

In order to scale the practice of fresh food donations by farmers, non-refundable tax credits do not, by and large, offer an incentive to the farmers' market farmer. The primary component missing from these tax credits is an acknowledgement of the transport time and expense required to move the edible produce off-farm to the people who need this produce the most.

Individual initiatives for food donations have come and gone from farmers' markets due to changing recipient charities, changing availability of volunteers, and changing market priorities. In cases where a third party is involved in making the connection between the people in need and the farmers (e.g. not the farmers and not the farmers' market), some of these initiatives have endured for years at a small scale. Instead of transporting unsold produce back to the farm, farmers can then donate their produce at the end of a market. Recommendations from Farmers' Market managers highlighted the importance of ensuring donations are quick and easy for farmers, the benefits of donating are well publicized, and that the farmers sees a tangible benefit from their donations.

The distance between farmers' markets and community organizations, which is a factor in the cost and refrigeration required when moving donations, needs to be considered when forming a partnership with food donation as a goal. The closer the partners, the less cost. The partners' capacity for food storage and market-day staff/volunteers also needs to be considered.

There is little evidence that the B.C. Food Donation Tax Credit improves farm profitability or even directly increases farmers' net income after taxes. Of the farmers surveyed, only one farmer stated that their bottom line profit would have a small impact due to the tax credit. Four and three farmers, respectively, expected a very small or no impact. In contrast, the popular BC Farmers' Market Nutrition Coupon Program directly increases farm revenue numbers from farmers' market farmer sales through coupons provided to people in need (Coupon Program, n.d.).

There is also little evidence that farmers are donating to reduce food waste even though this is a theme spoken of by policymakers. In the 2017 survey of farmers, reducing food waste as an incentive for donating tied for a distant third place behind wanting to give back to the community and wanting to give to people in need. Even though ranked as a lower use hierarchy, and supported by environmental literature, farmers spoke of composting food waste as being beneficial to the environment.

At a farmers' market, community develops between the vendors and the customers. At participating farmers' markets, this community includes a group of people in need who come to the market to spend coupons received from the BC Farmers' Market Nutrition Coupon Program. These coupon distributions are limited, with waiting lists to receive coupons, and prescribed weekly amounts.

## **Conclusions and Recommendations for Practice**

This thesis provides some of the first case study literature documenting farmers' past use, intended use and barriers to use for the new B.C. Farmers' Food Donation Tax Credit. In 2016, under a 1% utilization rate resulted in the Finance Minister saying "If this is a program we want to expand or extend, I think there is some work to do" (Legislative Assembly, 2018). In 2017, the Province of British Columbia funded \$10 million to Food Banks BC to improve the capacity of food banks to receive fresh donations. However, in the spring of 2019, when the researcher received weekly food from a Food Banks BC member food bank, the only fresh vegetables received needing refrigeration were B.C. cucumbers (one week only) and B.C. apples and imported oranges (on a number of weeks). As of 2019, the tax credit has been extended twice and yet there is little evidence of work being done to promote the tax credit to farmers. To be successful, programs connecting fresh, local produce with food charities and schools require awareness, human resources and transport to make the connection. Three recommendations to promote greater utilization of this tax credit among farmers' market farmers include: creating documentation supporting the credit, posting yearly social media awareness campaigns, and partnering with the existing BC Farmers' Market Nutrition Coupon Program.

### **New Documentation Supporting the Tax Credit**

Effective communication about the provincial tax credit for donating farmers is essential in order to raise the awareness of this credit. Given that the majority of farmers' market and food organization managers were unaware of the B.C. Farmers' Food Donation Tax Credit in 2017 as well as in 2019, continued communication still needs to occur at every opportunity, and this is not being done. For example, Member of Parliament Wayne Stetski addressed over 100 farmers and farmers' market managers on March 9, 2019 in Kimberley, B.C. and spoke of ways



provincial and federal government policies were helping farmers, including introducing a National Local Food Day; however, he did not once mention the B.C. Food Donation Tax Credit. One recommendation from a manager is to develop press release case studies of success highlighting farmers using the credit and documenting the benefits to increase farmers' uptake of this credit. One of the 30 farmers who claimed this credit originally in 2016 and who again claimed in 2017 and 2018 would be an ideal candidate for a case study. This case study success material could then be re-used as promotional speaking material and social media posts to help spread tax credit awareness. Another recommendation is to create documentation stating how to use the credit. This documentation exists in Ontario in the form of a one-page handout very clearly answering the questions What? Who? How? and When? (Appendix X). The Ontario Association of Food Banks, who created this handout, has also included a section on "Helpful Tips" (Understanding, 2016). The creator of the online surplus food matching platform FoodMesh.ca believes that a more personal approach is needed to raise awareness and stated that support would be needed in terms of "outreach partners to educate farmers on donating over composting" (Jessica Regan, Food Mesh, personal communication, April 1, 2019).

### **Yearly Social Media Awareness Campaigns**

An existing social media awareness photo which could be leveraged includes The Honourable Norm Letnick, former B.C. Minister of Agriculture, painted into an apple orchard holding the hashtag #BCFoodTaxCredit (News Release: Harvesting,[W4] 2016). This could be shared widely again on social media in the time of year when tax returns are completed (See Appendix Y). The social media reach of this post in October 2016 was across Facebook, Instagram and Twitter and respectively gathered 855 Likes, 39 Comments and 219 Shares with 91% of the activity on Facebook. As stated by the Minister of Agriculture, "You can have the

best program in the world, but if no one knows about it its effectiveness is limited.” (News Release: Harvesting, 2016, para. 6).

### **Partnering with the BC Farmers’ Market Nutrition Coupon Program**

Ensuring the burden of time and money to make donations does not fall on farmers is also a theme that emerged during the research. A current existing program, the BC Farmers’ Market Nutrition Coupon Program operates at farmers’ markets throughout British Columbia and brings “fresh local food to thousands of British Columbians facing economic barriers, while directly supporting local farmers across B.C.” (Coupon Program, n.d.). This program is funded by the Ministry of Health, which promotes it as a healthy eating program. Food banks can be viewed by charity workers as less healthy options (Kaiser & Cafer, 2018). This perception may extend to farmers, especially when food banks need to turn away fresh agricultural product donations due to lack of storage and/or refrigeration capacity. However, farmers markets are known to offer fresh food and the farmers are already bringing this healthy food to the markets. Since food organizations are already working with farmers’ markets in the Nutrition Coupon Program, there is a possibility for a stronger partnership of donation to develop. The farmers are already bringing fresh food, in potential excess, and the community partner may have the resources to transport the food to people in need. Bazerghi, McKay and Dunn (2016) highlighted how food banks are in need of fresh food to address food insecurity. Since a group of food insecure individuals receiving farmers’ market coupons are already coming to farmers’ markets as customers, the transporting of produce could be entirely removed if charities were able to both collect excess at farmers’ market and distribute this excess on-site at the markets. One market manager surveyed in 2019 especially liked this idea to provide a direct community benefit. More research is needed to survey the amount of excess typically remaining at the end of farmers’

markets. And, more research, is needed to explore the added cost to the food charities. Possibly, an honorarium for the administration of donated food distribution, as is paid for the Nutrition Coupon Program administration, would incentivize food charities to find individuals willing to champion the collection and donation of food from farmers to existing coupon recipients, as well as a wider base of recipients the charities already work with. This funding need not come from the provincial government, as private organizations, including VanCity, have yearly grant money dedicated to improving food security.

Programs which do collect and distribute fresh produce are dependent upon funding and leadership. All programs the researcher observed have come and gone based upon resources. Given no consistent sponsor, donation schemes do not endure across time. However, at farmers' markets, existing provincial programs could be leveraged to incorporate farmer donations. The BC Farmers' Market Nutrition Coupon Program is already connecting food insecure community members through charity partners with farmers markets. This is the best fit for making donations. For farmers, this would cost the least and take the least amount of time since produce is already being transported to 57 farmers' markets in communities where over 3,700 food insecure households are supported by charity partners (Anderson, 2018).

The structure of logistical support for the current BC Farmers' Market Nutrition Coupon Program could be re-used to support donations from farmers at farmers' markets going to existing community partners. Strengths of this suggestion are the benefits to farmers in terms of low-cost and time savings when donating, the existing relationships already in place; the province-wide, growing, and on-going nature of the coupon program; and the scale of collection being scalable up or down as determined by each partnership. An especially promising strength is the short physical distance between farmers' markets and community partners. As per Price

and Harris (2000), spatial economics plays a role in determining the viability of donations from farmers' markets to food organizations. A possible limitation of this solution is that not all coupon program community partners are required to be charities, and could be non-profits, but the tax credit needs a charity partner to issue the tax receipt. Another possible limitation of this solution is the branch of government supporting the Nutrition Coupon Program vs. the tax credit, the Ministry of Health and the Ministry of Finance, respectively.

## **Summary**

In general, the surveyed farmers had excess food to donate, had a history of donating and were willing to donate, but not at the expense of their own time and resources. Ensuring the time and money required to donate is minimized for the farmer will ensure the successful adoption of future donation schemes. More research into a larger number of farmers and farming corporation needs to be carried out.

## **Limitations**

This study is limited by a very small sample size. Accordingly, one needs to be careful about citing generalizable conclusions from this research.

In addition, this research did not look into the taxes paid by farmers in British Columbia. As one of the respondents wrote "2016 was the first year that B.C. (in total) registered a surplus after the depreciation of capital assets. As a result, there aren't a lot of farms that have needed tax credits to offset taxation." Additional research into the taxes paid by farmers would inform on the current level of taxes being paid by B.C. farmers. As Food Banks Canada's 2013 estimate of the tax credit expense nationally was based upon a utilization rate of 50% of eligible farmers, the question remains as to how many farmers in British Columbia pay taxes. Canada does offer

refundable tax credits, where farmers would receive money back, so that could be a consideration for farmers who owe no taxes (Reducing, 2016).

.

## REFERENCES

- 2018 community report (n.d.). Greater Vancouver Food Bank. Retrieved from [https://foodbank.bc.ca/wp-content/uploads/2018/11/GVF18016\\_Community\\_report\\_2018\\_ONLINE\\_low\\_resolution.pdf](https://foodbank.bc.ca/wp-content/uploads/2018/11/GVF18016_Community_report_2018_ONLINE_low_resolution.pdf)
- Abbotsford food bank [Facebook post]. (2015, November 6). Facebook. Retrieved from <https://www.facebook.com/AbbyFoodbank/posts/998523656853761>
- About Goodly Foods [Information on a Page]. (2019). Goodly Foods. Retrieved from <https://hellogoodly.ca/about/>
- About hunger [Information on a Page]. (2016). Food Banks BC. Retrieved from <https://www.foodbanksbc.com/about-hunger-in-bc/about-hunger/>
- About us [Information on a Page]. (2014). BC Association of Farmers' Markets. Retrieved from <http://www.bcfarmersmarket.org/about-us/our-story>
- Agar, T. I., Mitcham, E. J. (2000, May-June). Commercial handling influences quality and ripening of Bartlett pears. Department of Horticulture, Pomology Department, University of Çukurova. *California Agriculture* 54(3), 34-37. doi:10.3733/ca.v054n03p34
- Allen, P., Guthman, J., & Morris, A. W. (2006). Meeting farm and food security needs through community supported agriculture and farmers' markets in California. Research Brief #9. The Center for Agroecology & Sustainable Food Systems, University of California, Santa Cruz. Retrieved from [https://casfs.ucsc.edu/documents/research-briefs/RB\\_9\\_food\\_security.pdf](https://casfs.ucsc.edu/documents/research-briefs/RB_9_food_security.pdf)

- Anderson, K. (2018, May 5). News release: Farmers' market program expansion to support families, producers. British Columbia Ministry of Health. Retrieved from [https://archive.news.gov.bc.ca/releases/news\\_releases\\_2017-2021/2018HLTH0043-000843.htm](https://archive.news.gov.bc.ca/releases/news_releases_2017-2021/2018HLTH0043-000843.htm)
- Annual impact [Information on a Page]. (2015). Farm to Food Bank. Retrieved from <http://farmtofoodbank.com/annual-impact/>
- Artisan Farmers' Markets [Information on a Page]. (2017). Artisan Farmers' Market Society. Retrieved from <http://www.artisanmarkets.ca/>
- Asda. (2015, January 2). We're trialing 'wonky' veg to cut food waste - with Jamie Oliver [Blog Post]. Retrieved from <http://your.asda.com/news-and-blogs/we-re-trialling-wonky-veg-to-cut-food-waste-with-the-help-of-jamie-oliver>
- At a Glance, News from the NYU Steinhart Community. (2012, April 23). Carolyn Dimitri to Study the Economics of Urban Farming with \$453,000 USDA Grant [Blog Post]. Retrieved from <http://steinhardt.nyu.edu/site/ataglance/2012/04/carolyn-dimitri-usda-grant.html>
- Bazerghi, C., McKay, F., & Dunn, H. (2016). The Role of Food Banks in Addressing Food Insecurity: A Systematic Review. *Journal of Community Health*, 41(4), 732-740.
- B.C. farmers' food donation tax credit. (2019). Province of British Columbia. Retrieved from <http://www2.gov.bc.ca/gov/content/taxes/income-taxes/corporate/credits/farmers-food-donation>
- B.C. farmers' market trail. (2019). BC Association of Farmers' Markets. Retrieved from [bcfarmersmarkettrail.com/about/](http://bcfarmersmarkettrail.com/about/)

- B.C. liberals. (2013). Strong economy, secure tomorrow. Retrieved from  
<http://www.bcliberals.com/media/BCL%20booklet%20FINAL%20online.pdf>
- B.C. provincial budget tax changes. (2018, February 20). Province of British Columbia.  
 Retrieved from <https://www2.gov.bc.ca/gov/content/taxes/tax-changes/budget-changes>
- Beckie, M.A., Kennedy, E.H. & Wittman, H. (2012). Scaling up alternative food networks: farmers' markets and the role of clustering in western Canada. *Agriculture and Human Values*, 29(333). doi:10.1007/s10460-012-9359-9
- Bekkers, R., & Wiepking, P. (2011). A literature review of empirical studies of philanthropy: Eight mechanisms that drive charitable giving. *Nonprofit and Voluntary Sector Quarterly*, 40(5), 924-973
- Bill C-231: Fight against food waste act. (2016). Retrieved from  
<https://openparliament.ca/bills/42-1/C-231/>
- Brown, A., (2002). Farmers' market research 1940-2000: An inventory and review. *American Journal of Alternative Agriculture*, 17(4), 167- 176.
- Budget 2016-2017, the Quebec economic plan. (2016, March 17). Finances Québec.  
 Bibliothèque et archives nationales du Québec. Gouvernement du Québec.
- Budget Speech 2016. (2016, February 16). Province of British Columbia. Retrieved from  
[http://bcbudget.gov.bc.ca/2016/speech/BudgetSpeech\\_2016.pdf](http://bcbudget.gov.bc.ca/2016/speech/BudgetSpeech_2016.pdf)
- Budget Speech 2018. (2018, February 20). Province of British Columbia. Retrieved from  
[http://bcbudget.gov.bc.ca/2018/speech/2018\\_Budget\\_Speech.pdf](http://bcbudget.gov.bc.ca/2018/speech/2018_Budget_Speech.pdf)
- Budget Speech 2019. (2019, February 19). Province of British Columbia. Retrieved from  
[https://www.bcbudget.gov.bc.ca/2019/pdf/2019\\_Budget\\_Speech.pdf](https://www.bcbudget.gov.bc.ca/2019/pdf/2019_Budget_Speech.pdf)



- Campbell, E. C., Ross, M., & Webb, K. L. (2013). Improving the nutritional quality of emergency food: a study of food bank organizational culture, capacity, and practices. *Journal of hunger & environmental nutrition*, 8(3), 261-280.  
doi:10.1080/19320248.2013.816991
- Canada Revenue Agency. (2017, January). Charitable donation tax credit calculator. Retrieved from <http://www.cra-arc.gc.ca/chrts-gvng/dnrs/svngs/clmng1b2-eng.html>
- Canada Revenue Agency. (2016). British Columbia – 2016 general income tax and benefit package. Retrieved from <http://www.cra-arc.gc.ca/formspubs/t1gnrl/bc-eng.html>
- Chouinard, H. H., Paterson, T., Wandschneider, P. R., & Ohler, A. M. (2008, February). Will farmers trade profits for stewardship? Heterogeneous motivations for farm practice selection. *Land Economics*, (84)1, 66-82. Retrieved from <https://www-jstor-org.proxy.lib.sfu.ca/stable/27647806>
- Clark, C., (2015, July 30). Mandate letter to Honourable Norm Letnick, Minister of Agriculture. Retrieved from [http://www2.gov.bc.ca/assets/gov/government/ministries-organizations/premier-cabinet-mlas/minister-letter/norm\\_letnick\\_mandate\\_letter.pdf](http://www2.gov.bc.ca/assets/gov/government/ministries-organizations/premier-cabinet-mlas/minister-letter/norm_letnick_mandate_letter.pdf)
- Coleman-Jensen, A., Gregory, C., & Singh, A. (2014, September). Household food security in the United States in 2013. United States Department of Agriculture Economic Research Report Number 173. Retrieved from <http://www.ers.usda.gov/media/1565415/err173.pdf>
- Coloured fuels: Motor fuel tax act and carbon tax act. (2016, October). British Columbia Ministry of Finance: Tax Bulletin. Retrieved from [http://www.sbr.gov.bc.ca/documents\\_library/bulletins/mft-ct\\_003.pdf](http://www.sbr.gov.bc.ca/documents_library/bulletins/mft-ct_003.pdf)
- Committee documents: Standing committee on social policy - 2013-Oct-29 - Bill 36, Local Food Act, 2013. (2013). Legislative Assembly of Ontario. Retrieved from

[http://www.ontla.on.ca/web/committee-proceedings/committee\\_transcripts\\_details.do?locale=en&Date=2013-10-29&ParlCommID=8963&BillID=2754&Business=&DocumentID=27366](http://www.ontla.on.ca/web/committee-proceedings/committee_transcripts_details.do?locale=en&Date=2013-10-29&ParlCommID=8963&BillID=2754&Business=&DocumentID=27366).

Community food program donation tax credit for farmers. (2013). Ontario Ministry of Finance.

Queen's Printer for Ontario. Retrieved from <http://www.fin.gov.on.ca/en/credit/cfpdtc/>

Coupon program [Information on a Page]. (n.d.). BC Association of Farmers Markets. Retrieved from <http://www.bcfarmersmarket.org/coupon-program/about-program>

Determining fair market value of non-cash gifts. (2018, November 2). Canada Revenue Agency.

Retrieved from <https://www.canada.ca/en/revenue-agency/services/charities-giving/charities/operating-a-registered-charity/issuing-receipts/determining-fair-market-value-gifts-kind-non-cash-gifts.html>

Dimitri, C., Oberholtzer, L., & Pressman, A. (2016). Urban agriculture: connecting producers with consumers. *British Food Journal*, 118(3), 603-617. doi:10.1108/BFJ-06-2015-0200

Donation of food act. (1994). Queen's Printer for Ontario. Retrieved from <https://www.ontario.ca/laws/statute/94d19>

Duff, D. G. (2004). Tax treatment of charitable contributions in Canada: Theory, practice, and reform. *Osgoode Hall LJ*, 42, 47.

Economic accounts (2016, October 7). Statistics Canada. Retrieved from

<https://www150.statcan.gc.ca/n1/pub/11-402-x/2010000/chap/econo/econo-eng.htm>

Eriksson, M., Strid, I., & Hansson, P. A. (2015). Carbon footprint of food waste management options in the waste hierarchy—a Swedish case study. *Journal of Cleaner Production*, 93, 115-125.

Eriksson, M., & Spångberg, J. (2017). Carbon footprint and energy use of food waste management options for fresh fruit and vegetables from supermarkets. *Waste management*, 60, 786-799.

European commission agriculture and rural development. (2015, April 22). Fruit and vegetables: Marketing standards [Information on a Page]. Retrieved from [http://ec.europa.eu/agriculture/fruit-and-vegetables/marketing-standards/index\\_en.htm](http://ec.europa.eu/agriculture/fruit-and-vegetables/marketing-standards/index_en.htm)

Fair wages commission – Living wage. (2019, April 11). Province of British Columbia. Retrieved from <https://engage.gov.bc.ca/govtogetherbc/consultation/fair-wages-commission-living-wage/>

Farm to food bank. (2015). Abbotsford Community Services Food Bank. Retrieved from <https://www.abbotsfordfoodbank.com/portfolio/farm-to-food-bank/>

Farm trucks [Information on a Page]. (2016). Insurance Corporation of British Columbia. Retrieved from <http://www.icbc.com/vehicle-registration/specialty-vehicles/Pages/Farm-trucks.aspx>

Farm vehicles on the move: A guide to licensing farm vehicles in British Columbia. (2016, May). Insurance Corporation of British Columbia. Retrieved from <http://www.icbc.com/vehicle-registration/specialty-vehicles/Documents/farm-vehicle.pdf>

Find a local market [Information on a Page]. (2016). BC Association of Farmer's Markets. Retrieved from <http://markets.bcfarmersmarket.org/market-search?page=2&region=7>

FAO, Food and agriculture organization of the United Nations. (2013). Food wastage footprint, impacts on natural resources. Retrieved from <http://www.fao.org/docrep/018/i3347e/i3347e.pdf>

Food banks British Columbia [Information on a Page]. (2019). Retrieved from <https://www.foodbanksbc.com/food-banks-british-columbia>

Food donor encouragement act. (1997, May 26). Victoria, B.C.: Queen's Printer. Retrieved from [http://www.bclaws.ca/Recon/document/ID/freeside/00\\_97008\\_01](http://www.bclaws.ca/Recon/document/ID/freeside/00_97008_01)

Food recovery challenge [Information on a Page]. (2014, November 6). U.S. Environmental Protection Agency. Retrieved from <http://www.epa.gov/foodrecoverychallenge/joinnow.htm>

Food recovery program [Information on a Page]. (n.d.). Langley Community Farmers' Market. Retrieved from <http://lcfm.ca/wp-content/uploads/2017/04/FOOD-RECOVERY-PROGRAM-LCFMS-2017.pdf>

Food safety guidelines for food banks. (2006, August). Food Protection Services, British Columbia Centre for Disease Control, An Agency of the Provincial Health Services Authority. Retrieved from <http://www.viha.ca/NR/rdonlyres/F9FD80EF-3802-4CFD-B60C-48C61C0717A8/0/GuidelinesforFoodBanks.pdf>

French supermarkets must now donate unsold food to charity. (2016, February 10). USA Today. Retrieved from <http://www.usatoday.com/story/money/nation-now/2016/02/09/french-supermarkets-must-now-donate-unsold-food-charity/80076632/>

French national pact to fight against food waste. (2013, June 21). Ministère de l'agriculture, de l'agroalimentaire et de la forêt. Retrieved from [http://www.oecd.org/site/agrfcn/Session%205\\_Perrine%20Coulomb.pdf](http://www.oecd.org/site/agrfcn/Session%205_Perrine%20Coulomb.pdf)

Frequently asked questions. (2019). Province of British Columbia. Retrieved from <https://www2.gov.bc.ca/gov/content/taxes/income-taxes/personal/credits/farmers-food-donation/faqs>

Fresh food tax credit: An agricultural tax credit for fresh food donations. (2013, October). Food Banks Canada. Retrieved from [https://www.foodbankscanada.ca/getmedia/2deb5fc2-b130-4533-8078-29b1cb81dd90/Fresh-Food-Tax-Credit\\_Food-Banks-Canada\\_Oct2013.pdf.aspx?ext=.pdf](https://www.foodbankscanada.ca/getmedia/2deb5fc2-b130-4533-8078-29b1cb81dd90/Fresh-Food-Tax-Credit_Food-Banks-Canada_Oct2013.pdf.aspx?ext=.pdf)

Gasson, R. (1973, September). Goals and values of farmers. *Journal of Agricultural Economics*. 24(3), 521-542. doi:10.1111/j.1477-9552.1973.tb00952.x|

GDP growth (annual %). (2019). The World Bank. Retrieved from <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=CA>

Griffin, M., Sobal, J., & Lyson, T. (2009, March). An analysis of a community food waste stream. *Agriculture and Human Values*, 26(1-2), 67-81. Retrieved from <http://link.springer.com/article/10.1007/s10460-008-9178-1#>

Gleaning organizations. (n.d.). CAFS The National Gleaning Project. Vermont Law School. Retrieved from <http://forms.vermontlaw.edu/farmgleaning/GleaningOrgs.cfm>

Greater Vancouver Food Bank [Information on a Page]. (n.d.). Retrieved from <https://foodbank.bc.ca/>

Greenhouse gas equivalencies calculator. (n.d.) United States Environmental Protection Agency. Retrieved from <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>

Guide: Income tax return. (2016). Revenu Québec. Retrieved from [http://www.revenuquebec.ca/documents/en/formulaires/tp/2016-12/tp-1-g-v\(2016-12\).pdf](http://www.revenuquebec.ca/documents/en/formulaires/tp/2016-12/tp-1-g-v(2016-12).pdf)

Gunders, D. (2012, August). Wasted: How America is losing up to 40 percent of its food from farm to fork to landfill. NRDC Issue Paper IP:12-06-B. *Natural Resources Defense Council*. Retrieved from <http://www.nrdc.org/food/files/wasted-food-ip.pdf>

Gustavsson, J., Cederberg, C., Sonesson, U., van Otterdijk, R., & Meybeck, A. (2011). Global food losses and food waste – Extent, causes and prevention. Rome: Food and Agriculture Organization of the United Nations. Retrieved from <http://www.fao.org/docrep/014/mb060e/mb060e00.pdf>

Helping businesses manage food waste. (2015, March). Greater London Authority, Mayor of London, London Assembly. Retrieved from <https://www.london.gov.uk/priorities/environment/waste-litter/foodsave>

Hoisington, A., Butkus, S. N., Garrett, S., & Beerman, K. (2001). Field gleaning as a tool for addressing food security at the local level: Case study. *Journal of Nutrition Education* 33(1), 43-48. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/12031205>

House of Commons / Chambre des Communes, Canada. (2016, October 4). 42<sup>nd</sup> parliament, 1<sup>st</sup> session edited Hansard, Number 087. Retrieved from <http://www.ourcommons.ca/DocumentViewer/en/42-1/house/sitting-87/hansard>

House of Commons / Chambre des Communes, Canada. (2013, February). Tax incentives for charitable giving in Canada: Report of the standing committee on finance Retrieved from <http://www.ourcommons.ca/DocumentViewer/en/41-1/FINA/report-15>

Household Food insecurity in Canada: Problem definition and potential solutions in the public policy domain. (2016). *Canadian Public Policy*, 42(1), 83-93.

Hunger Count 2015-2106: A comprehensive report on hunger and food bank use in Canada, and recommendations for change. (2015). Food Banks Canada | Banques Alimentaires Canada. Retrieved from [https://www.foodbankscanada.ca/getmedia/01e662ba-f1d7-419d-b40c-bcc71a9f943c/HungerCount2015\\_singles.pdf](https://www.foodbankscanada.ca/getmedia/01e662ba-f1d7-419d-b40c-bcc71a9f943c/HungerCount2015_singles.pdf) and <https://www.foodbanksbc.com/wp-content/uploads/2016/11/2016-Hunger-Count.pdf>.

- Hunger Count 2018. (2019). Food Banks Canada | Banques Alimentaires Canada. Retrieved from <https://hungercount.foodbankscanada.ca/national-overview>
- Imperfect picks: Imperfectly shaped perfectly delicious [Blog Post]. (n.d.). Retrieved from <http://www.harrisfarm.com.au/blogs/campaigns/15320613-imperfect-picks>
- Ingles, C. A., & Klonsky, K. M. (2012). Sample costs to produce organic pears: Golden russet bosc. Sacramento, CA: University of California Cooperative Extension. Retrieved from [http://coststudyfiles.ucdavis.edu/uploads/cs\\_public/98/4c/984cc236-f5bc-4385-a5d3-ad1c9d1fe75d/pearsorg\\_sv2012.pdf](http://coststudyfiles.ucdavis.edu/uploads/cs_public/98/4c/984cc236-f5bc-4385-a5d3-ad1c9d1fe75d/pearsorg_sv2012.pdf)
- Issue 17-104: 2016 Census: Household income in Canada highlights. (2017, September 13). Province of British Columbia. Retrieved from <https://www2.gov.bc.ca/gov/content/data/statistics/infoline/infoline-2017/17-104-2016-census-household-income>
- Izumi, B. T., Wright, D. W., Hamm, M.W. (2010). Market diversification and social benefits: Motivations of farmers participating in farm to school programs. *Journal of Rural Studies*, 26, 374-382. doi:10.1016/j.jrurstud.2010.02.002
- Jung, S. L. (2013, January). Food insecurity and healthcare costs: Research strategies using local, state, and national data sources for older adults. *Advances in Nutrition* 4(1), 42-50. doi:10.3945/an.112.003194
- Kaiser, M., & Cafer, A. (2018). Understanding high incidence of severe obesity and very low food security in food pantry clients: Implications for social work. *Social Work in Public Health*, 33(2), 125-139.

- Kantor, L. S., Lipton, K., Manchester, A., & Oliveira, V. (1997). Estimating and addressing America's food losses. Food Review/ National Food Review, United States Department of Agriculture, Economic Research Service, 20(1), 1-11
- Legislative Assembly of British Columbia. (2018, March 8). Official report of debates of the legislative assembly (Hansard). Afternoon sitting Issue No. 99. Retrieved from <https://www.leg.bc.ca/documents-data/debate-transcripts/41st-parliament/3rd-session/20180308pm-Hansard-n99>
- Legislative Assembly of British Columbia. (2016, February 25). Official report of debates of the legislative assembly (Hansard). Afternoon sitting Volume 33, Number 7. Retrieved from <https://www.leg.bc.ca/documents-data/debate-transcripts/40th-parliament/5th-session/20160225pm-Hansard-v33n7>
- Let's talk about the Abbotsford food bank [Information on a Page]. (2015). Abbotsford Community Services. Retrieved from <https://www.abbotsfordfoodbank.com/about-us/>
- Lieb, E. B., Rice, C., Berkendamp, J. & Gunders, D. (2017, March). Don't waste, donate – Enhancing food donations through federal policy. Harvard Law School food Law and Policy Clinic and the Natural Resources Defense Council. Retrieved from [http://www.chlpi.org/wp-content/uploads/2013/12/Dont-Waste-Donate\\_-March-2017.pdf](http://www.chlpi.org/wp-content/uploads/2013/12/Dont-Waste-Donate_-March-2017.pdf)
- Loopstra, R. & Tarasuk, V. (2015). Food bank usage is a poor indicator of food insecurity: Insights from Canada. *Social Policy and Society*, 14(03), 443-455.
- Love food hate waste [Information on a Page]. (2015). Metro Vancouver. Retrieved from <http://www.lovefoodhatewaste.ca/>
- Macdonald, D. (2016, November). Out of the shadows: Shining a light on Canada's unequal distribution of federal tax expenditures. Canadian Centre for Policy Alternatives.



Retrieved from

[https://www.policyalternatives.ca/sites/default/files/uploads/publications/National%20Office/2016/11/Out\\_of\\_the\\_Shadows.pdf](https://www.policyalternatives.ca/sites/default/files/uploads/publications/National%20Office/2016/11/Out_of_the_Shadows.pdf)

Marcel Worldwide. (n.d.). Inglorious fruits & vegetables by Intermarché [Information on a Page]. Retrieved from <http://itm.marcelww.com/inglorious/>

Martinez, S., Hand, M., Da Pra, M., Pollack, S., Ralston, K., Smith, T., Vogel, S., Clark, S., Lohr, L., Low, S., and Newman C. (May 2010). Local food systems. Concepts, impacts, and issues. United States Department of Agriculture Economic Research Service, Economic Research Report Number 97. Retrieved from [http://www.ers.usda.gov/media/122868/err97\\_1\\_.pdf](http://www.ers.usda.gov/media/122868/err97_1_.pdf)

Miller, S.R. (2014, May 9). Agritourism at the rural-urban interface: A national overview of legal issues with 20 proposals for Idaho. Economic Development Clinic, University of Idaho College of Law. doi:10.2139/ssrn.2435306

MODEL GUIDELINE for FOOD SAFETY IN FOOD BANKS. (1999, October 6).

Federal/Provincial/Territorial Committee on Food Safety Policy. Retrieved from [http://www.hc-sc.gc.ca/fn-an/alt\\_formats/hpfb-dgpsa/pdf/legislation/food\\_bank-banque\\_alimentaire-eng.pdf](http://www.hc-sc.gc.ca/fn-an/alt_formats/hpfb-dgpsa/pdf/legislation/food_bank-banque_alimentaire-eng.pdf)

Monitoring household food insecurity over time. (2017, August 8). Statistics Canada. Retrieved from <https://www.canada.ca/en/health-canada/services/food-nutrition/food-nutrition-surveillance/health-nutrition-surveys/canadian-community-health-survey-cchs/household-food-insecurity-canada-overview/monitoring-household-food-insecurity-over-time-household-food-insecurity-canada-overview-health-canada.html>

Net farm income: Table 002-0009. (2019, April 17). Statistics Canada. Retrieved from <http://www5.statcan.gc.ca/cansim/a47>

News release: \$24 million for supports to benefit families living in low income. (2017, March 22). BC Gov News. Retrieved from <https://news.gov.bc.ca/releases/2017SDSI0036-000781/2017SDSI0036-000781>

News release: B.C. agriculture generosity + B.C. charities = Fresh local food. (2016, February 25). BC Gov News. Retrieved from <https://news.gov.bc.ca/releases/2016AGRI0008-000275>

News release: Harvesting B.C.'s farmers' food donation tax credit. (2016, October 3). BC Gov News. Retrieved from <https://news.gov.bc.ca/releases/2016AGRI0061-001885>

News release: Provincial funding supports Okanagan food banks. (2017, March 22). BC Gov News. Retrieved from <https://news.gov.bc.ca/releases/2017AGRI0037-000788>

News release: Roadmap to 2020 – B.C. agrifood and seafood strategic growth plan launched. (2015, December 2). BC Gov News. Retrieved from <https://news.gov.bc.ca/releases/2015AGRI0071-002008>

Ontario Bill 36, tax credit to farmers. (2013, November). Ontario Association of Food Banks. Retrieved from <http://www.oafb.ca/bill-36---tax-credit-for-farmers>

Ontario Ministry of Finance. (2014). 2014 Ontario economic outlook and fiscal review: Transparency in taxation. Retrieved from <http://fin.gov.on.ca/en/budget/fallstatement/2014/transparency.html>

Ontario Ministry of Finance. (2015). 2015 Ontario economic outlook and fiscal review:

Transparency in taxation. Retrieved from

<http://fin.gov.on.ca/en/budget/fallstatement/2015/transparency.html>

Ontario Ministry of Finance. (2016). 2016 Ontario economic outlook and fiscal review:

Transparency in taxation. Retrieved from

<http://fin.gov.on.ca/en/budget/fallstatement/2016/transparency.html>

Organisation for Economic Co-operation and Development. (2009). International standards for

fruit and vegetables: Pears. Retrieved from [http://www.oecd-ilibrary.org/agriculture-and-food/pears\\_9789264068322-en-fr](http://www.oecd-ilibrary.org/agriculture-and-food/pears_9789264068322-en-fr)

Organisation for Economic Co-operation and Development. (2015). Members and partners.

Retrieved from <http://www.oecd.org/about/membersandpartners/>

Our network. (n.d.). Food Mesh. Retrieved from <https://foodmesh.ca/about/>

Our story. (n.d.). Edible Garden Project, North Shore Neighborhood House. Retrieved from

<http://ediblegardenproject.com/our-story>

Parfitt, J., Barthel, M., Macnaughton, S. (2010). *Philosophical Transaction of the Royal Society*

*B*. Retrieved from 10.1098/rstb.2010.0126

Pearson, L. J., Pearson, L., & Pearson, C. J. (2010). Sustainable urban agriculture: stocktake and

opportunities. *International journal of agricultural sustainability*, 8(1-2), 7-19.

doi:10.3763/ijas.2009.0468

Perry, G. M., Nixon, C. J., & Bunnage, K. J. (1992). Taxes, farm programs, and competitive

advantage for US and Canadian farmers: a case study. *American Journal of Agricultural*

*Economics*, 74(2), 299-309.

- Philip, D., Hod-Ovadia, S., & Troen, A. M. (2017). A technical and policy case study of large-scale rescue and redistribution of perishable foods by the “Leket Israel” food bank. *Food and Nutrition Bulletin*, 38(2), 226–239. doi:10.1177/0379572117692440
- Poppendieck, J. (1994). Dilemmas of emergency food: A guide for the perplexed. *Agriculture and Human Values*, 11(4), 69-76. doi:10.1007/BF01530418
- Price, C. C., & Harris, J. M. (2000, February). Increasing food recovery from farmers’ markets: A preliminary analysis. United States Department of Agriculture, Economic Research Service, Food and Rural Economics Division, Food Assistance and Nutrition Research Report No. 4. Retrieved from [https://www.ers.usda.gov/webdocs/publications/46821/52026\\_fanrr4.pdf?v=0](https://www.ers.usda.gov/webdocs/publications/46821/52026_fanrr4.pdf?v=0)
- Provincial farm land tax credit [Information on a Page]. (n.d.). British Columbia Property Taxes. Retrieved from <http://www2.gov.bc.ca/gov/content/taxes/property-taxes/annual-property-tax/reduce/farm-land>
- Recovery/Donations. (n.d.). United States Department of Agriculture, Office of the Chief Economist. <http://www.usda.gov/oce/foodwaste/resources/donations.htm>
- Recycling leftovers for animal feed. (2003). Sustainability Pathways. United Nations Food and Agriculture Organisation. Retrieved from <http://www.fao.org/nr/sustainability/food-loss-and-waste/database/projects-detail/en/c/150856>
- Reducing your taxes: Non-refundable and refundable tax credits. (2016, August 5). Financial Consumer Agency of Canada. Government of Canada. Retrieved from <http://www.fcac-acfc.gc.ca/Eng/resources/educationalPrograms/ft-of/Pages/taxes-qc-3-7.aspx>

- Roff, R. (2016, Mar 3). The farmers' food donation tax credit misses the mark in food security. *Policynote*. Retrieved from <http://www.policynote.ca/the-farmers-food-donation-tax-credit-misses-the-mark-in-food-security/>
- Roshanafshar, S. & Hawkins, E. (2018, September 9). Statistics Canada. Food insecurity in Canada. Retrieved from <http://www.statcan.gc.ca/pub/82-624-x/2015001/article/14138-eng.pdf>
- SAVE FOOD [Information on a Page]. (2015). Food and Agriculture Organization of the United Nations. Retrieved from <http://www.fao.org/save-food/en/>
- Schneider, F. (2013). The evolution of food donation with respect to waste prevention. *Waste Management*, 33(3), 755-763.
- Selling at B.C. farmers' markets: A profile of market vendors: Vegetable farmers. (2008). BC Association of Farmers' Markets
- Sert, S., Garrone, P., & Melacini, M. (2014). Keeping food alive: surplus food management. *European Journal of Sustainable Development*, 3(4), 339-346.
- Sharing the bounty [Information on a Page]. (n.d.). Edible Garden Project, North Shore Neighborhood House. Retrieved from <http://ediblegardenproject.com/sharing-bounty>
- Sisson, L. G. (2016, April 25). Food recovery program at farmers' markets increases access to fresh fruits and vegetables for food insecure individuals. *Journal of Hunger and Environmental Nutrition*, 11(3), 337-339.
- Small farms and direct marketing play a large role in British Columbia. (2017, May 10). Statistics Canada. Retrieved from <https://www.statcan.gc.ca/pub/95-640-x/2016001/article/14809-eng.htm>

SNAP and farmers markets. (2019, February 7). United States Department of Agriculture Food and Nutrition Service. Retrieved from <https://www.fns.usda.gov/ebt/snap-and-farmers-markets>

State of Oregon tax expenditure report: 2019-21 Biennium. (2018). Oregon Department of Revenue Research Section. Retrieved from <https://www.oregon.gov/DOR/programs/gov-research/Documents/te1921%20-%20Final.pdf>

Statistics Canada agriculture taxation data program. (2016). Statistics Canada. Retrieved from <http://www.statcan.gc.ca/pub/21-207-x/2011000/t028-eng.htm>

Stimulating Canada's charitable sector: A tax incentive plan for charitable food donations. (2012, January). Food Banks Canada. Brief of the Finance Committee Report from February 2013. Retrieved from [http://www.ourcommons.ca/Content/Committee/411/FINA/WebDoc/WD5340612/411\\_FINA\\_TIFCD\\_Briefs/FoodBanksCanadaE.pdf](http://www.ourcommons.ca/Content/Committee/411/FINA/WebDoc/WD5340612/411_FINA_TIFCD_Briefs/FoodBanksCanadaE.pdf)

Summer Intern (Paid). (n.d.). Edible Garden Project, North Shore Neighborhood House. Retrieved from <http://ediblegardenproject.com/wp-content/uploads/2014/12/Summer-Intern-Job-Description.pdf>

Surrey, Stanley, S. (1970 February). Tax incentives as a device for implementing government policy: A comparison with direct government expenditure. *Harvard Law Review*. Retrieved from <http://www.jstor.org/stable/1339837>

Sustainable development goals. (2019, March 29). United Nations. Retrieved from <https://www.un.org/sustainabledevelopment>

Tarasuk, V., Cheng, J., de Oliveira, C., Dachner, N., Gundersen, C. and Kurdyak, P. (2015, August 10). Association between household food insecurity and annual health care costs. *Canadian Medical Association Journal*, 187(14) E429-E436. doi:10.1503/cmaj.150234

Tax credit review: 2019 session research report #2-19. (2019, January 24). State of Oregon. Retrieved from <https://www.oregonlegislature.gov/lro/Documents/Tax%20Credit%20Report%20RR%202019.pdf>

Tax credit supports farmer donations to food banks. (2016, May 19). Province of Nova Scotia News Releases. Retrieved from <https://novascotia.ca/news/release/?id=20160519005>

Tscharntke, T., Clough, Y., Wagner, T. C., Jackson, L., Motzke, I., Perfecto, I., Vandermeer, J., Whitbread, A. (2012, March 13). Global food security, biodiversity conservation and the future of agricultural intensification. *Biological Conservation*, 151(1), 53-59.

Temporary food markets guideline for the sale of foods at temporary food markets. (2014, August). Food Protection, Environmental Health Services, British Columbia Centre for Disease Control. Retrieved from [https://www.vch.ca/media/Guidelines\\_Sale\\_Of\\_Foods\\_At\\_Temporary\\_Food\\_Markets\\_April\\_2014.pdf](https://www.vch.ca/media/Guidelines_Sale_Of_Foods_At_Temporary_Food_Markets_April_2014.pdf)

Towards a poverty reduction strategy – A backgrounder on poverty in Canada. (2016, October). Government of Canada. Retrieved from <https://www.canada.ca/en/employment-social-development/programs/poverty-reduction/backgrounder.html#h2.4-h3.1-h4.4>

Understanding the food donation tax credit for farmers. (2016, August). Ontario Association of Food Banks. Retrieved from <https://oafb.ca/wp-content/uploads/2016/08/Bill-36.pdf>

USDA and EPA join with private sector, charitable organizations to set nation's first food waste reduction goals. (2015, September 16). United States Department of Agriculture. Release No. 0257.15. Retrieved from [http://www.usda.gov/wps/portal/usda/usdahome?contentid=2015/09/0257.xml&navid=NEWS\\_RELEASE&navtype=RT&parentnav=LATEST\\_RELEASES&deployment\\_action=retrievecontent](http://www.usda.gov/wps/portal/usda/usdahome?contentid=2015/09/0257.xml&navid=NEWS_RELEASE&navtype=RT&parentnav=LATEST_RELEASES&deployment_action=retrievecontent)

United States Department of Agriculture (USDA) Natural Resources Conservation Service. (2014). Animal enhancement activity – ANM34 - Leave standing grain crops unharvested to benefit wildlife. Retrieved from [http://www.nrcs.usda.gov/wps/PA\\_NRCSCConsumption/download?cid=nrcseprd328863&ext=pdf](http://www.nrcs.usda.gov/wps/PA_NRCSCConsumption/download?cid=nrcseprd328863&ext=pdf)

United States Environmental Protection Agency (EPA). (2014, November 20). The food recovery hierarchy [Information on a Page]. Retrieved from <http://www.epa.gov/foodrecovery/>

United States Government. (1996, October 1). Public Law 104–210. 104<sup>th</sup> Congress. Retrieved from <http://www.gpo.gov/fdsys/pkg/PLAW-104publ210/pdf/PLAW-104publ210.pdf>

#VanFoodBank launches Goodly Foods, thanks to largest donation in history, from the Walmart Foundation [Blog post]. (2018, April 19).

Vendor and entertainer list [Information on a Page]. (2016). Artisan Farmers' Market Society. Retrieved from <http://www.artisanmarkets.ca/our-markets/>

Vitiello, D., Grisso, J. A., Whiteside, K. L., & Fischman, R. (2015). From commodity surplus to food justice: food banks and local agriculture in the United States. *Agriculture and human values*, 32(3), 419-430.



What's @ the market? [Information on a Page]. (2017). What's @ the Market?. Retrieved from <http://whatsatthemarket.com/vendor/>

Who we are. [Information on a Page]. (2019). Second Harvest Food Rescue. Retrieved from <https://www.foodrescue.ca/public/about-food-rescue>

Wittman, H., Beckie, M. & Hergesheimer, C. (2012). Linking local food systems and the social economy? Future roles for farmers' markets in Alberta and British Columbia. *Rural Sociology*, 77(1), 36-61

Woolworths. (2014. November 30).Woolworths The odd bunch, not quite perfect looking fruit and vegetables [Press Release]. Retrieved from [http://www.woolworthslimited.com.au/page/The\\_Newsroom/Latest\\_News/Woolworths\\_The\\_Odd\\_Bunch\\_not\\_quite\\_perfect\\_looking\\_fruit\\_and\\_vegetables/](http://www.woolworthslimited.com.au/page/The_Newsroom/Latest_News/Woolworths_The_Odd_Bunch_not_quite_perfect_looking_fruit_and_vegetables/)

## APPENDICES

### Appendix A: An Overview of Food Donation Laws in the United States

As per Lieb, Rice, Berkendamp & Gunders (2017) in Appendix B of Don't Waste, Donate

Table 8

#### State Level Tax Incentive Laws

| Legislation  | Deduction or credit | Benefit  | Eligible donors  | Eligible food   | Eligible recipients   |
|--|---------------------|--|--|---|---|
| <b>Arizona</b><br>ARIZ. REV. STAT.<br>ANN. § 42-5074     | Deduction           | Gross proceeds of sales or gross income from donated food  | Restaurants  | Prepared food, drink, or condiment  | Nonprofits that regularly serve free meals to the needy and indigent at no cost                         |
| <b>Arizona</b><br>ARIZ. REV. STAT.<br>ANN. § 43-1025     | Deduction           | Full wholesale market price, or the most recent sale price (whichever is greater) of donated crops | Taxpayer engaged in the business of farming or processing agricultural crops                   | Agricultural crops  | Nonprofits located in Arizona whose use of the crop is related to their tax-exempt status               |
| <b>California</b><br>CAL. REV. & TAX. CODE<br>§ 17053.88 | Credit              | 10% of inventory cost  | Taxpayer responsible for planting, managing, and harvesting crops                              | Fresh produce   | Food banks located in California  |
| <b>California</b><br>CAL. REV. & TAX. CODE<br>§ 17053.12 | Credit              | 50% of transportation costs  | Taxpayer engaged in the business of processing, distributing, or selling agricultural products | Agricultural crops  | Nonprofits  |
| <b>Colorado</b><br>COLO. REV. STAT. § 39-22-536          | Credit              | 25% of wholesale market price, up to \$5,000 annually  | All taxpayers  | Agricultural crops (grains, fruit, vegetables), livestock, eggs, dairy  | Nonprofit hunger-relief charitable organizations  |
| <b>Colorado</b><br>COLO. REV. STAT. ANN. § 39-22-301     | Credit              | 25% of wholesale market price, up to \$1,000 annually  | C-Corporations   | Crops and livestock   | Charitable organizations that do not collect money, other property, or services in exchange for product |
| <b>District of Columbia</b><br>D.C. CODE<br>§ 47-1806.14 | Credit              | 50% of the value of the food commodity donation, up to 2,500 annually                              | All taxpayers  | Food Commodities (vegetables, fruits, grains, mushrooms, honey, herbs, nuts, seeds, or rootstock grown in the District by urban farming or by a community garden) | District of Columbia food banks or shelters recognized as a tax-exempt organization                     |

## Appendix A (continued)

| Legislation  | Deduction or credit | Benefit  | Eligible donors  | Eligible food                                    | Eligible recipients   |
|--|---------------------|--|--|--|---|
| <b>Iowa</b><br>IOWA CODE §§ 190B.101-.106, 422.11E, 422.33(30) | Credit              | 15% of fair market value, up to \$5,000 annually     | Taxpayers that produce a food commodity                | Any apparently wholesome food                    | Food banks and emergency feeding organizations  |
| <b>Kentucky</b><br>KY. REV. STAT. ANN. § 141.392               | Credit              | 10% of fair market value                             | Taxpayer who derives income from agricultural products | Edible agricultural products                     | Nonprofit food programs operating in Kentucky   |
| <b>Missouri</b><br>MO. REV. STAT. § 135.647                    | Credit              | 50% of food or cash donation, up to \$2,500 annually | All taxpayers  | Cash or food that is not past-date               | Local food pantries in the area where the donor resides in MO   |
| <b>Oregon</b><br>OR. REV. STAT. § 315.154 and 315.156          | Credit              | 10% of wholesale market price                        | Taxpayer or corporation that grows crops or livestock  | Crops and livestock                              | Food bank or other charitable organization in OR that distributes food without charge                         |
| <b>South Carolina</b><br>S.C. CODE ANN. § 12-6-3750            | Credit              | \$75 per carcass                                     | Licensed meat packer, butcher, or processing plant     | Deer   | Nonprofits engaged in distributing food to needy; no portion of deer can be sold                              |
| <b>Virginia</b><br>VA CODE ANN. § 58.1-439.12:12               | Credit              | 30% of fair market value, up to \$5,000 annually     | Any person engaged in the business of farming          | Food crops (grains, fruits, nuts, or vegetables) | Nonprofit food bank engaged in providing food to the needy; food can be sold to the needy or other nonprofits |

(Lieb, et al., 2017)

## Appendix B: Food Wastage Throughout the Food System

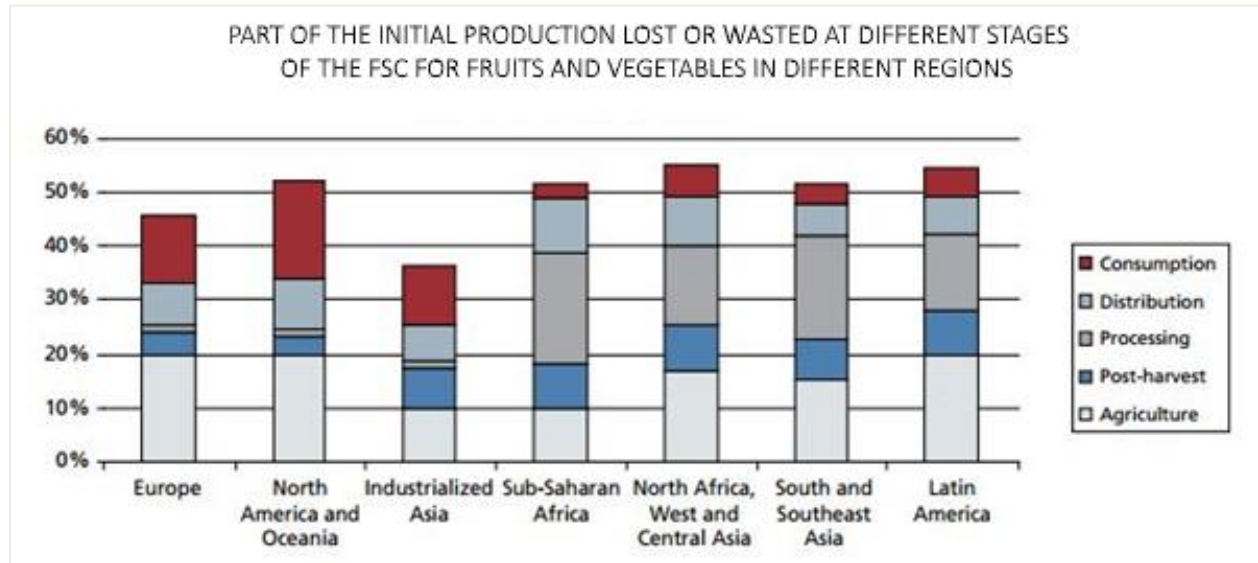


Figure 23. Food Losses at Different Stages of the Food System

(Gunders, 2012)

## Appendix C: Ranking of Food Recovery Methods

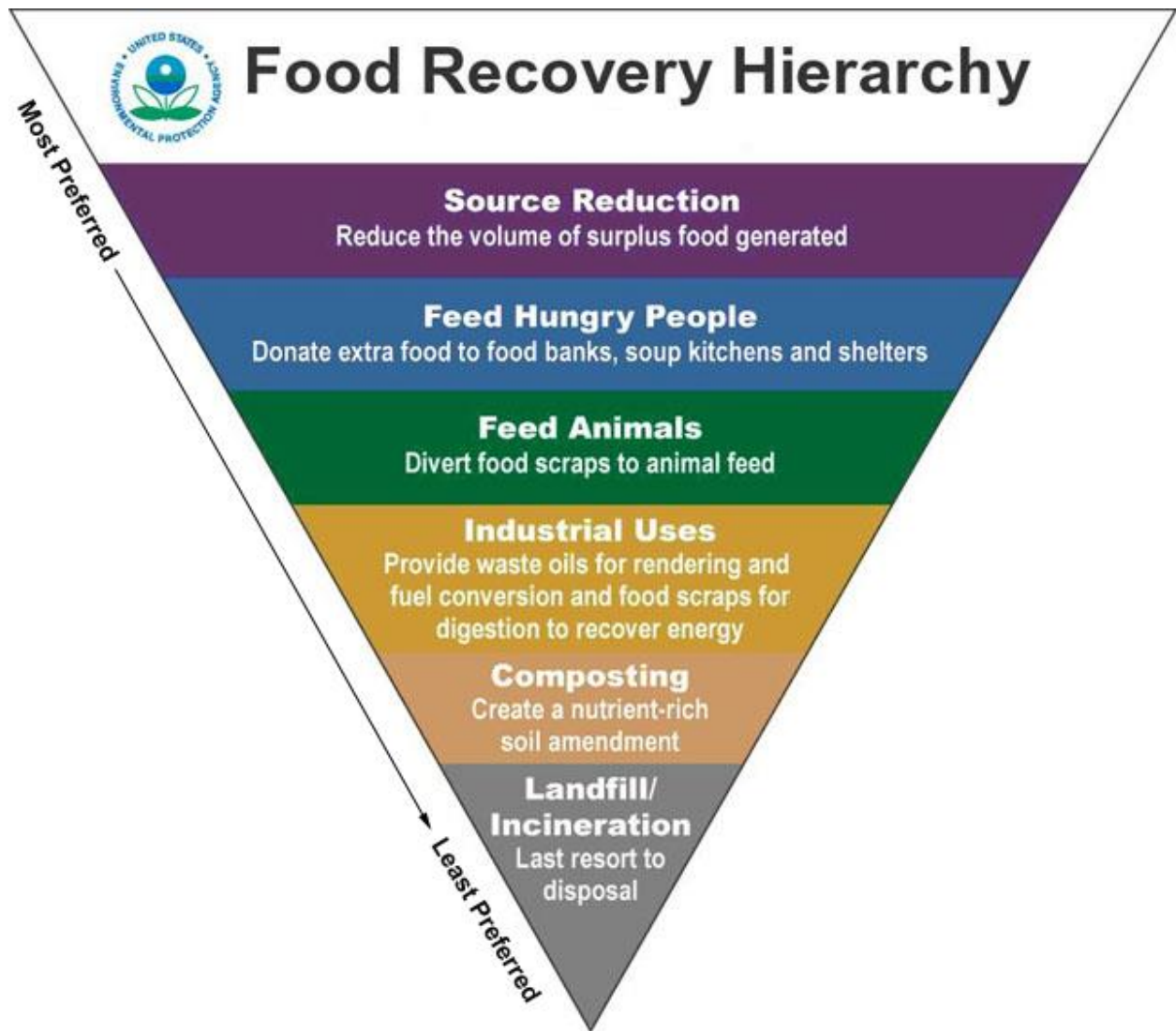


Figure 24. Food Recovery Hierarchy by the EPA

(EPA, 2014)

## Appendix D: Food Waste Examples and Quantities at Farms

Table 9

### *Examples of Food Waste at Farms*

| FOOD SYSTEM STAGE                        | EXAMPLES OF WASTAGE  |
|--|--|
| <b>PRODUCTION</b>                        | (1) Natural disasters<br>(2) Insect and predator destruction<br>(3) Overproduction<br>(4) Incomplete automated harvesting<br>(5) Selective harvesting<br>(6) Failure to harvest, due to low market prices or poor yields |
| <b>POST-HARVEST HANDLING AND STORING</b> | (1) Spoilage<br>(2) Pest destruction   |

(Griffin, Sobal & Lyson, 2009)

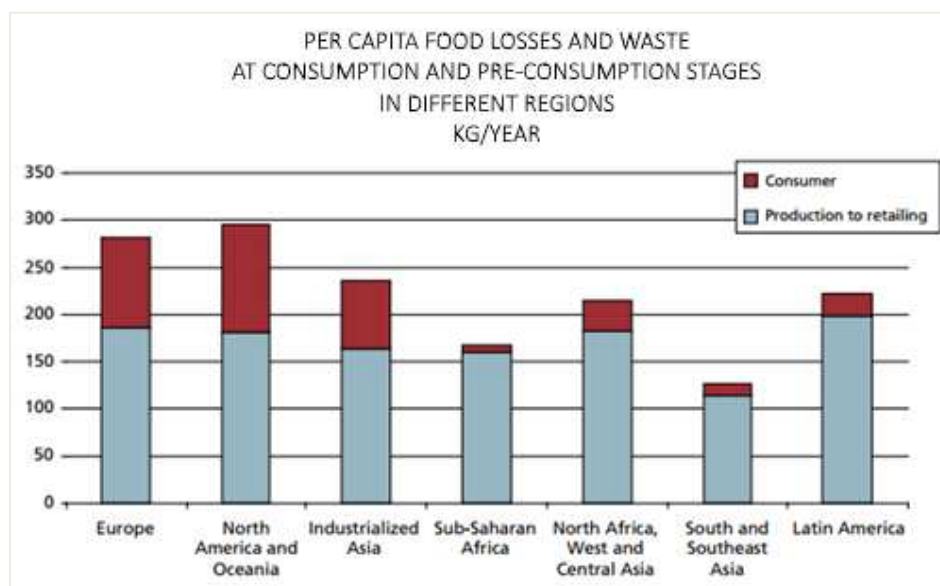


Figure 25. Food losses and waste at consumption and pre-consumption

(Gustavsson, Cederberg, Sonesson, van Otterdijk., & Meybeck, 2011)



## Appendix E: Cosmetic Standards for Pears

The Grading of Pears into Acceptable Classes for Sale and Reasons for Being “Out-Graded”.  
Thirty-four countries currently belong to the OECD and follow these guidelines, including Canada (Organisation, 2015).

photo 42: Classes Extra, I and II “fruit with/without stalk”  
Left: “Extra” Class – fruit with stalk intact  
middle: Class I – fruit with slightly damaged stalk  
Right: Class II – fruit without stalk, adjacent skin intact



photo 42 : Catégories Extra, I et II “Fruit avec ou sans pédoncule”  
À gauche : catégorie “Extra” – fruit avec pédoncule intacte  
Au milieu : catégorie I – fruit avec pédoncule légèrement endommagé  
À droite : catégorie II – fruit sans pédoncule, épiderme tangente intact

photo 14: Minimum requirement “intact”  
Injury of the stalk cavity - Not allowed



photo 14 : Caractéristique minimale “entier”  
Mutilation de la cavité pédonculaire - Exclu

photo 32: Class I - Variety: Conference  
Left: Typical shape - Right: Slight defect in shape - Limit allowed



photo 32 : Catégorie I - Variété : Conférence  
À gauche : Forme typique - À droite : Un léger défaut de forme - Limite admise

photo 43: Class II - Variety: Conference  
Left: Typical shape - Right: Defect in shape - Limit allowed



photo 43 : Catégorie II - Variété : Conférence  
À gauche : Forme typique - À droite : Défaut de forme - Limite admise

Figure 26. Cosmetic Standards for Pears

(Organisation, 2009, Pages 86, 61, 77 & 87)

## Appendix F: Branding for Imperfect Produce Sales



Figure 27. Packham Pears from Harris Farm Markets in Sydney, Australia up to 50% off (Imperfect Picks, n.d.).

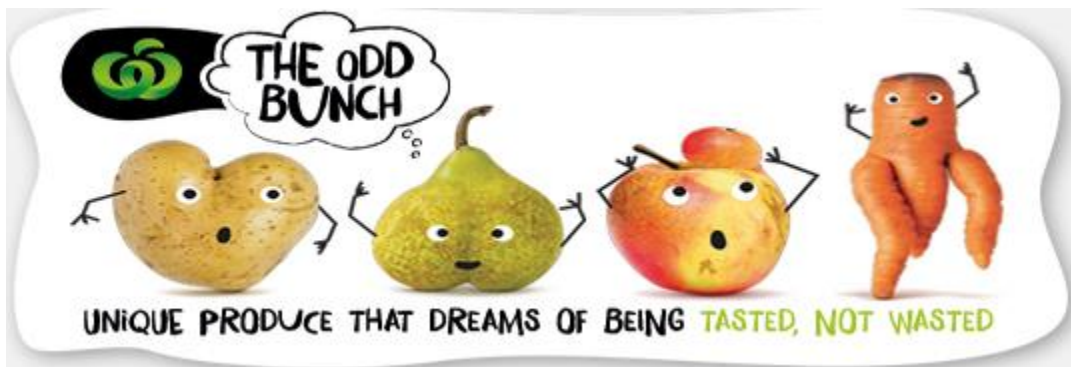


Figure 28. The Odd Bunch at Woolworths in Australia up to 30% off (Woolworths, 2014).



**ASDA** **We're trialling 'wonky' veg to cut food waste - with Jamie Oliver**



Figure 29. Beautiful on the Inside Marketing from Asda in the UK

(Asda, 2015).

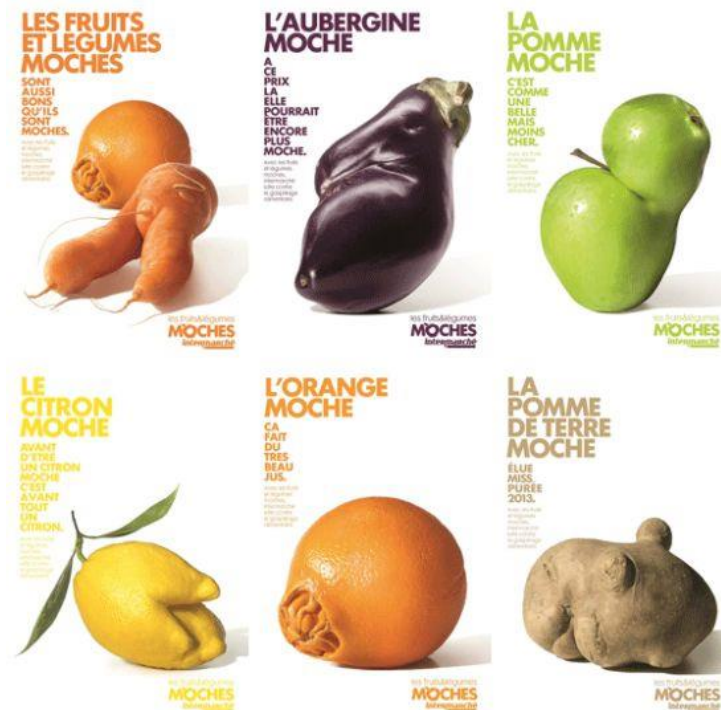


Figure 30. Inglorious Fruits and Vegetables Marketing from Intermarché in France at 30% off (Marcel, n.d.).

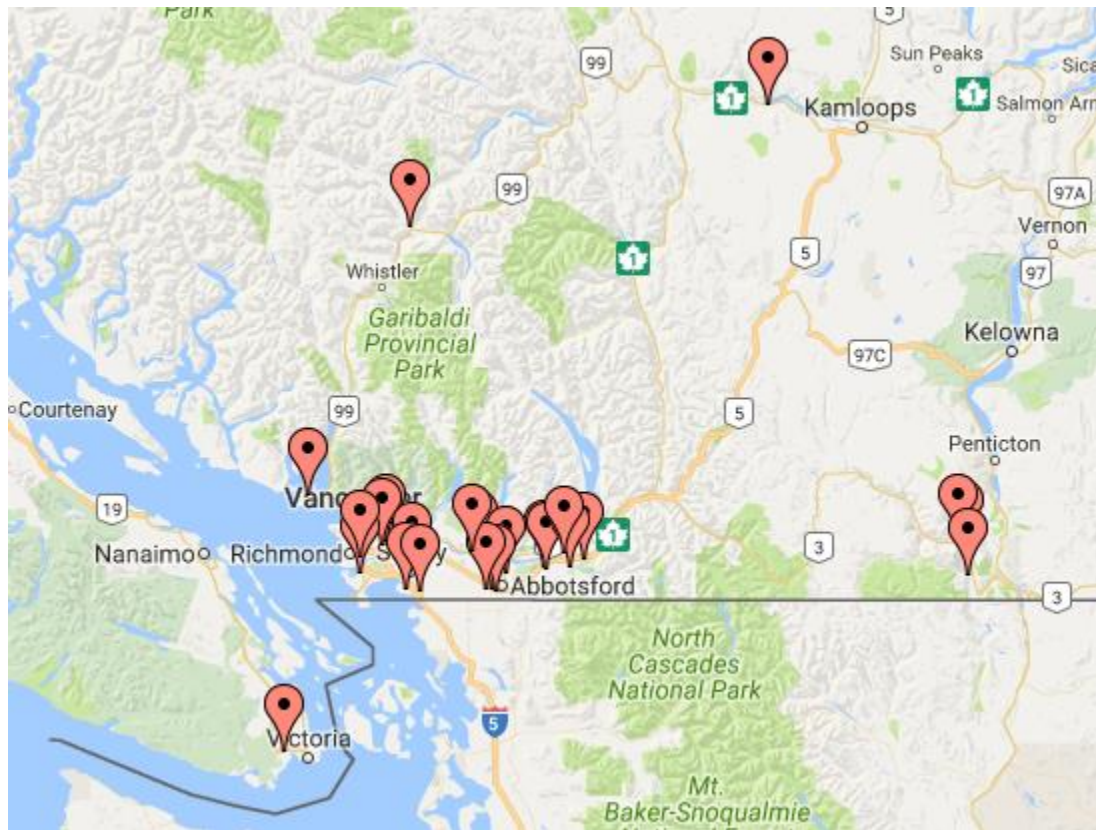
## Appendix G: Farm to Food Bank Gleaning Example



*Figure 31. 400 pounds (181 kilograms) collected in one day gleaning*

(Abbotsford, 2015)

## Appendix H: Map of Artisan Farmers' Market Farmers



*Figure 32. Farm locations for farmers selling at Artisan Farmers' Markets in Vancouver.*  
(Vendor, 2016)

## Appendix I: Crop Donation Non-Refundable Tax Credits in Oregon

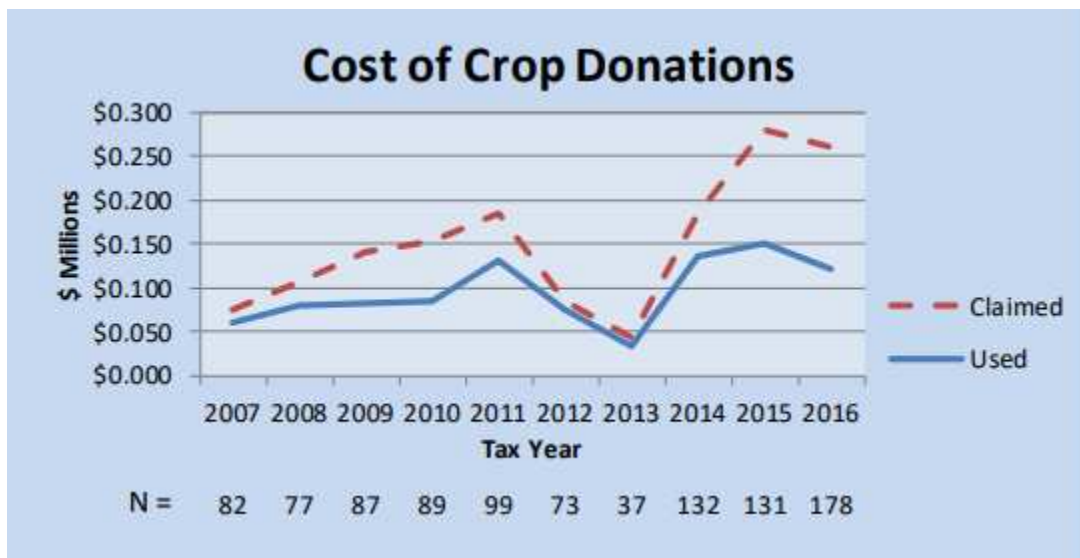


Figure 33. Cost of Crop Donations for the State of Oregon


The legislation was allowed to sunset in 2012 and returned in 2014 in an enhanced manner.

(State of Oregon, 2018)



## Appendix J: T1 General 2016 - BC428 - British Columbia Tax

Protected B when completed



**British Columbia Tax**

**BC428**  
T1 General - 2016

Complete this form and attach a copy to your return. For more information, see the related line in the forms book.

### Step 1 – British Columbia non-refundable tax credits

|   |  |                            |  |                            |     |
|---|--|----------------------------|--|----------------------------|-----|
| Basic personal amount   |  | For internal use only 5609 |  |                            |     |
| Age amount (if born in 1951 or earlier) (use the Provincial Worksheet)                      |  | claim \$10,027 5804        |  |                            | 1   |
| Spouse or common-law partner amount   |  | (maximum \$4,497) 5808 +   |  |                            | 2   |
| Base amount   |  | 9,445.00                   |  |                            |     |
| Minus: his or her net income from page 1 of your return                                     |  | -                          |  |                            |     |
| Result: (if negative, enter "0")  |  | =                          |  | (maximum \$8,586) ▶ 5812 + | 3   |
| Amount for an eligible dependant  |  |                            |  |                            |     |
| Base amount   |  | 9,445.00                   |  |                            |     |
| Minus: his or her net income from line 236 of his or her return                             |  | -                          |  |                            |     |
| Result: (if negative, enter "0")  |  | =                          |  | (maximum \$8,586) ▶ 5816 + | 4   |
| Amount for infirm dependants age 18 or older (use the Provincial Worksheet)                 |  |                            |  | 5820 +                     | 5   |
| CPP or QPP contributions:   |  |                            |  |                            |     |
| (amount from line 308 of your federal Schedule 1)   |  |                            | 5824 +   |                            | * 6 |
| (amount from line 310 of your federal Schedule 1)   |  |                            | 5828 +   |                            | * 7 |
| Employment insurance premiums:  |  |                            |  |                            |     |
| (amount from line 312 of your federal Schedule 1)   |  |                            | 5832 +   |                            | * 8 |
| (amount from line 317 of your federal Schedule 1)   |  |                            | 5829 +   |                            | * 9 |
| Adoption expenses (amount from line 313 of your federal Schedule 1)                         |  |                            | 5833 +   |                            | 10  |
| Children's fitness amount   |  |                            | 5838 +   |                            | 11  |
| Children's fitness equipment amount (50% of amount from line 5838)                          |  |                            | 5842 +   |                            | 12  |
| Children's arts amount  |  | (maximum \$500 per child)  | 5841 +   |                            | 13  |
| Back-to-school amount   |  |                            | 5846 +   |                            | 14  |
| Education coaching amount   |  |                            | 5843 +   |                            | 15  |
| Pension income amount   |  | (maximum \$1,000)          | 5836 +   |                            | 16  |
| Caregiver amount (use the Provincial Worksheet)   |  |                            | 5840 +   |                            | 17  |
| Disability amount (for self)  |  |                            |  |                            |     |
| (Claim \$7,521, or if you were under 18 years of age, use the Provincial Worksheet.)        |  |                            | 5844 +   |                            | 18  |
| Disability amount transferred from a dependant (use the Provincial Worksheet)               |  |                            | 5848 +   |                            | 19  |
| Interest paid on your student loans (amount from line 319 of your federal Schedule 1)       |  |                            | 5852 +   |                            | 20  |
| Your tuition and education amounts (use and attach Schedule BC(S11))                        |  |                            | 5856 +   |                            | 21  |
| Tuition and education amounts transferred from a child                                      |  |                            | 5860 +   |                            | 22  |
| Amounts transferred from your spouse or common-law partner (use and attach Schedule BC(S2)) |  |                            | 5864 +   |                            | 23  |
| Medical expenses:   |  |                            |  |                            |     |
| Amount from line 330 of your federal Schedule 1   |  | 5868                       |  |                            | 24  |
| Enter \$2,085 or 3% of line 236 of your return, whichever is less.                          |  | -                          |  |                            | 25  |
| Line 24 minus line 25 (if negative, enter "0")  |  | =                          |  |                            | 26  |
| Allowable amount of medical expenses for other dependants (use the Provincial Worksheet)    |  |                            | 5872 +   |                            | 27  |
| Add lines 26 and 27.  |  | 5876 =                     |  | ▶ +                        | 28  |
| Add lines 1 to 23, and line 28.   |  |                            | 5880 =   |                            | 29  |
| British Columbia non-refundable tax credit rate   |  |                            | ×  | 5.06%                      | 30  |
| Multiply line 29 by line 30.  |  |                            | 5884 =   |                            | 31  |
| Donations and gifts:  |  |                            |  |                            |     |
| Amount from line 16 of your federal Schedule 9  |  | ×                          | 5.06% =  |                            | 32  |
| Amount from line 17 of your federal Schedule 9  |  | ×                          | 14.7% =  | +                          | 33  |
| Add lines 32 and 33.  |  | 5896 =                     |  | ▶ +                        | 34  |
| Add lines 31 and 34.  |  |                            |  | =                          | 35  |
| Farmers' food donation tax credit:  |  |                            |  |                            |     |
| Enter the amount of qualifying gifts that have also been claimed on line 35.                |  | ×                          | 25% =  | 5898 +                     | 36  |
| Add lines 35 and 36.  |  |                            |  |                            |     |
| Enter this amount on line 49.   |  |                            | British Columbia non-refundable tax credits 6150 = |                            | 37  |

Continue on the next page.

5010-C

Figure 34. T1 General 2016 - BC428 - British Columbia Tax

(Canada Revenue Agency, 2016)

## Appendix K: Canada T1 General 2016 – Schedule 9 – Donations and Gifts

Protected B when completed

**T1-2016** **Donations and Gifts** **Schedule 9**

For more information, see line 349 in the guide and see Pamphlet P113, *Gifts and Income Tax*.

Attach a copy of this schedule to your return. Remember, you may have charitable donations shown on your T4 and T4A slips.

Donations made to registered charities, registered Canadian amateur athletic associations, and registered Canadian low-cost housing corporations for the aged

Donations made to government bodies (government of Canada, a province or territory, a registered municipality in Canada, or a registered municipal or public body performing a function of government in Canada)

Donations made to registered universities outside Canada that are prescribed

Donations made to the United Nations, its agencies, and certain registered foreign charitable organizations

Add lines 1 to 4. Total eligible amount of charitable donations

Enter your net income from line 236 of your return. 6 × 75% =

**Note:** If line 5 is less than line 7, enter the amount from line 5 on line 13 below and continue completing the schedule from that line.

Gifts of depreciable property (from Chart 2 in Pamphlet P113, *Gifts and Income Tax*) 337

Gifts of capital property (from Chart 1 in Pamphlet P113, *Gifts and Income Tax*) 339+

Add lines 8 and 9. 10 × 25% =

Enter the total of lines 7 and 11 or the amount on line 236 of your return, whichever is less. Total donations limit

Allowable charitable donations (enter the amount from line 5 or line 12, whichever is less) 340

Eligible amount of cultural and ecological gifts (see line 349 in the guide) 342+

Add lines 13 and 14.

Enter \$200 or the amount from line 15, whichever is less.

Line 15 minus line 16. If your taxable income is less than \$200,000, enter "0" at line 26 and continue on line 28. Otherwise, complete lines 18 to 27, before continuing on line 28.

Enter the amount from line 17.

Enter the amount of donations included at line 15 that were made before 2016. 354-

Line 18 minus line 19 (if negative, show it in brackets)

Enter the amount from line 16 or line 19, whichever is less.

Add lines 20 and 21.

Enter your taxable income from line 260 of your return.

Income threshold 200,000.00

Line 23 minus line 24 (if negative enter "0")

If you did not complete lines 18 to 25, enter "0". Otherwise, enter the amount from line 22 or line 25, whichever is less.

If you did not complete lines 18 to 27, enter the amount from line 17. Otherwise, enter the result of line 17 minus line 26.

Enter the amount from line 16.

**First-time donor's super credit (FDSC)**

For the purpose of the FDSC, you will be considered a first-time donor if neither you nor your spouse or common-law partner has claimed and been allowed a charitable donations tax credit for any year after 2007.

Only gifts of money made after March 20, 2013, to a maximum of \$1,000, are eligible for the FDSC.

**Note:** If you have a spouse or common-law partner, you can share the claim for the FDSC, but the total combined donations claimed cannot be more than \$1,000.

Enter the amount of gifts of money\* made after March 20, 2013. (Maximum \$1,000) 343

Add lines 27, 29, 31, and 33.

Enter this amount on line 349 of Schedule 1. Donations and gifts

\* The amount claimed on line 343 must also be claimed on line 340 by you or your spouse or common-law partner. If the donations are shared, the combined amount on line 343 for you and your spouse or common-law partner cannot be more than the combined amount claimed on line 340 by both of you.

5000-S9 See the privacy notice on your return.

Figure 35. Canada T1 General 2016 – Schedule 9 – Donations and Gifts

(Canada Revenue Agency, 2016)

## Appendix L: Characteristics of BC Farmers' Market Farmers

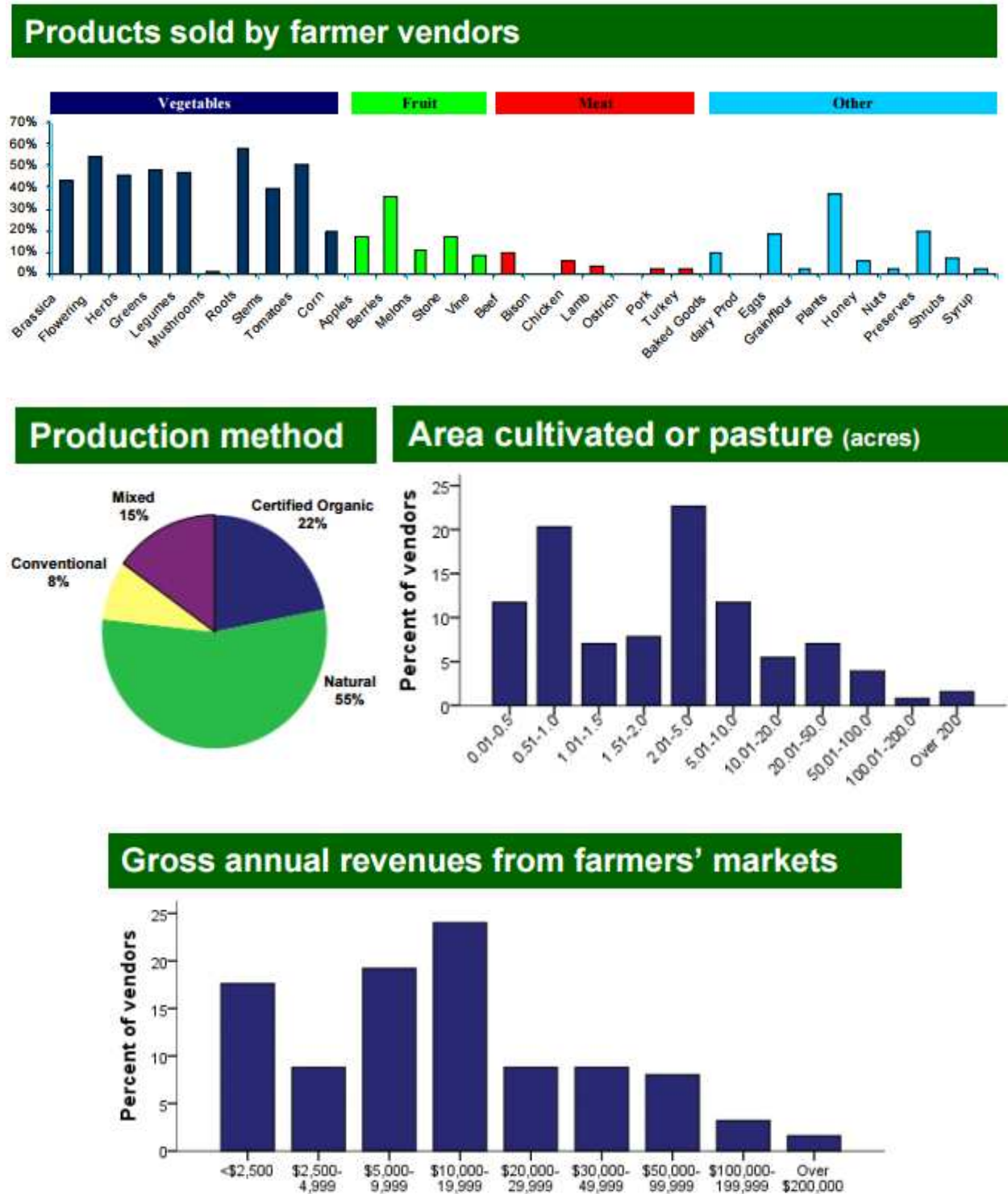


Figure 36. Characteristics of BC Farmers' Market Farmers

(Selling, 2008)

## Appendix M: Survey Instrument for Farmers in 2017

### Farmers' Survey on Food Donation Tax Credits

Q1 In 2016, how often did you donate fresh edible agricultural products?

- ☐ Not at all (1)
- ☐ Once (2)
- ☐ Less than once a month (3)
- ☐ Once a month (4)
- ☐ Several times a month (5)
- ☐ Once a week (6)
- ☐ More than once a week (7)

Display This Question:

If Not at all is Not Selected; In 2016, how often did you donate fresh edible agricultural products? Not at all Is Not Selected

Q2 Thinking of your 2016 donations, to which of the following have you donated fresh agricultural products? (Please choose all that apply.)

- ☐ Church or religious group (1)
- ☐ Community/civic improvement organization or project (2)
- ☐ Fire, police, or emergency service department (3)
- ☐ Food bank (4)
- ☐ Health care institution (hospital, ambulance service, nursing home, etc.) (5)
- ☐ Schools (K – 12) (6)
- ☐ Service or fraternal organization (Lions, Rotary, etc.) (7)
- ☐ Youth group (Scouts, 4-H, Sports teams, etc.) (8)
- ☐ Veterans group (9)
- ☐ Other (please specify) (10) \_\_\_\_\_

Display This Question:

If Not at all; In 2016, how often did you donate fresh edible agricultural products? Not at all Is Selected

Q3 Thinking of why you did not donate in 2016, how relevant were each of the following reasons in stopping you from donating? (Please rate each line.)



|   | Not at all Relevant (1) | Slightly Relevant (2) | Moderately Relevant (3) | Relevant (4)          | Very Relevant (5)     |
|---|-------------------------|-----------------------|-------------------------|-----------------------|-----------------------|
| All that I grow is contractually committed (1)          | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> |
| Harvesting for donation labour costs (2)                | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> |
| Harvesting for donation time requirements (3)           | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> |
| Harvesting for donation transport costs (4)             | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> |
| I have no product(s) suitable for donation (5)          | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> |
| I compost/re-use what I could donate on my own farm (6) | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> |
| I worry about the ramifications of illness (7)          | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> |
| No one has asked me to donate (8)                       | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> |
| There have not been causes I want to support (9)        | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> |
| Other (please specify & rank) (10)                      | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> |
| Other (please specify & rank) (11)                      | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> |

Display This Question:

If Not at all is Not Selected; In 2016, how often did you donate fresh edible agricultural products? Not at all Is Not Selected

Q4 Thinking of why you donated in 2016, how important were each of the following reasons in motivating you to donate? (Please rate each line.)

|   | Not at all<br>Important (1) | Slightly<br>important (2) | Moderately<br>important (3) | Very<br>important (4) | Extremely<br>important (5) |
|---|-----------------------------|---------------------------|-----------------------------|-----------------------|----------------------------|
| Being asked<br>to give (1)                              | <input type="radio"/>       | <input type="radio"/>     | <input type="radio"/>       | <input type="radio"/> | <input type="radio"/>      |
| Getting<br>recognition<br>from your<br>community<br>(2) | <input type="radio"/>       | <input type="radio"/>     | <input type="radio"/>       | <input type="radio"/> | <input type="radio"/>      |
| Helping<br>people in<br>need (3)                        | <input type="radio"/>       | <input type="radio"/>     | <input type="radio"/>       | <input type="radio"/> | <input type="radio"/>      |
| Observing<br>religious<br>obligations<br>(tithing) (4)  | <input type="radio"/>       | <input type="radio"/>     | <input type="radio"/>       | <input type="radio"/> | <input type="radio"/>      |
| Preventing<br>food waste<br>(5)                         | <input type="radio"/>       | <input type="radio"/>     | <input type="radio"/>       | <input type="radio"/> | <input type="radio"/>      |
| Receiving tax<br>benefits (6)                           | <input type="radio"/>       | <input type="radio"/>     | <input type="radio"/>       | <input type="radio"/> | <input type="radio"/>      |
| Wanting to<br>give back to<br>your<br>community<br>(7)  | <input type="radio"/>       | <input type="radio"/>     | <input type="radio"/>       | <input type="radio"/> | <input type="radio"/>      |
| Other (please<br>specify &<br>rank) (8)                 | <input type="radio"/>       | <input type="radio"/>     | <input type="radio"/>       | <input type="radio"/> | <input type="radio"/>      |
| Other (please<br>specify &<br>rank) (9)                 | <input type="radio"/>       | <input type="radio"/>     | <input type="radio"/>       | <input type="radio"/> | <input type="radio"/>      |

Q5 Have you ever claimed a charitable tax credit for your donations of agricultural products (2016 or earlier)?

- ☐ Yes (1)
- ☐ No (2)

Display This Question:

If Yes; Have you ever claimed a charitable tax credit for your donations of agricultural products (2016 or earlier)... Yes Is Selected

Q6 There are many reasons why farmers do not claim charitable tax credits. What is the main reason why you have not? (Please choose one only.)

- ☐ I did not know I could receive a tax credit (1)
- ☐ I do not pay enough in taxes to need a credit (2)
- ☐ I do not track the amount I donate (3)
- ☐ I do not know the steps required to claim a tax credit (4)
- ☐ The organization to which I donate does not provide tax credit receipts (5)
- ☐ The amount of time required to claim the credit makes it not worth my while (6)
- ☐ I do not donate (7)
- ☐ Other (Please specify) (8) \_\_\_\_\_

Q7 Are you currently planning to use the 2016 – 2018 B.C. Farmers' Food Donation Tax Credit?

- ☐ Yes (1)
- ☐ No (2)

Display This Question:

If Not at all is Not Selected; In 2016, how often did you donate fresh edible agricultural products? Not at all Is Not Selected

Q8 In 2016, what was the approximate retail value of the edible agricultural products you donated?

- ☐ \$1 to \$99 (1)
- ☐ \$100 to \$250 (2)
- ☐ \$251 to \$500 (3)
- ☐ \$500 to \$999 (4)
- ☐ \$1,000 to \$2,499 (5)
- ☐ \$2,500 to \$4,999 (6)
- ☐ \$5,000 to \$9,999 (7)
- ☐ \$10,000 or more (8)
- ☐ I track my donations only by weight and the approximate weight was (9)  
\_\_\_\_\_
- ☐ I track in another manner, which is (10) \_\_\_\_\_
- ☐ I donate, but I do not track my donations (11)
- ☐ Other (12) \_\_\_\_\_

Q9 Given that the B.C. Farmers' Food Donation Tax Credit enables you to receive additional non-refundable tax credits of 25% of retail value for all agricultural products donated to charities, does this new tax law result in you wanting to increase in your food donations?

- ☐ Most Definitely Yes (1)
- ☐ Probably Yes (2)
- ☐ Unknown (3)
- ☐ Probably Not (4)
- ☐ Definitely Not (5)

Q10 What is your primary reason for the above decision?

Q11 Are there any additional reasons for the above decision? If so, please specify.

Q12 Considering the financial impact of a 25% non-refundable tax credit, how much of a difference do you perceive this would make to your bottom line profit?

- ☐ No difference (1)
- ☐ Very small impact (2)
- ☐ Small impact (3)
- ☐ Medium impact (4)
- ☐ Large impact (5)

Q13 Year after year, what proportion of your products, originally intended to be sold for human consumption, do you estimate end up not being sold?

- ☐ 0% (1)
- ☐ Less than 2% (2)
- ☐ 2 to 5% (3)
- ☐ 6 to 10% (4)
- ☐ 11 to 15% (5)
- ☐ 16 to 20% (6)
- ☐ 21 to 30% (7)
- ☐ 31 to 40% (8)
- ☐ 41 to 50% (9)
- ☐ Over 50% (10)
- ☐ Don't know (11)

Condition: 0% Is Selected. Skip To: Do you have any final comments before....

Display This Question:

If 0% is Not Selected; What proportion of your cultivated area used for growing or raising products originally intended for human consumption do you estimate will not be sold for human consumption in 2017? 0% Is Not Selected

Q15 Thinking about a mature crop, there are many reasons why fresh agricultural product suitable for human consumption does not get consumed by humans. How frequently do these reasons occur at your farm? (Please rate each line.)

|  | Never (1)             | Sometimes (2)         | About half the time (3) | Most of the time (4)  | Always (5)            |
|--|-----------------------|-----------------------|-------------------------|-----------------------|-----------------------|
| Natural causes, including weather, disease and pests (1)                             | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> |
| Cosmetic standards, leaving product unharvested or out-graded post-harvest (2)       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> |
| Supply and demand unpredictability, resulting in price changes, excessive supply (3) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> |
| Technical causes, damaging due to harvesting tools, improper storage (4)             | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> |
| Labour issues, leading to labour shortages at harvest time (5)                       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> |
| Cost issues (6)  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> |
| leading to decisions to not harvest, store, or transport (7)                         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> |
| Timing Issues, resulting in not enough time to get products to sale (8)              | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> |
| Other (please specify) (9)   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> |

Q16 Do any of the above categories overlap? If so, please explain

Q17 If you wish, please further describe reasons why food suitable for human consumption is not consumed by humans at your farm:

Q18 Thinking of what happens with fresh food grown for human consumption when it is not sold through your primary marketing channels, how frequently do the following occur?

|                        | Never (1)             | Infrequently (2)      | Sometimes (3)         | Frequently (4)        | Always (5)            |
|------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Sold at a Discount (1) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Used on Farm (2)       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Donated (3)            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Other (4)              | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Other (5)              | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Display This Question:

If Never is Not Selected; Thinking of what happens with fresh food grown for human consumption when it is not sold fresh, how frequently do the following occur? - Never Is Not Selected

Q19 How frequently have you Sold at a Discount for:

|   | Never (1)             | Sometimes (2)         | About half the time (3) | Most of the time (4)  | Always (5)            |
|---|-----------------------|-----------------------|-------------------------|-----------------------|-----------------------|
| human consumption (discounters, processing) (1) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> |
| animal feed (2)                                 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> |
| energy recovery (digestion, bio-gas) (3)        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> |
| composting (4)                                  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> |
| Other (5)                                       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> |
| Other (6)                                       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> |

Q20 How frequently have you Used on Farm for:

|  | Never (1)             | Sometimes (2)         | About half the time (3) | Most of the time (4)  | Always (5)            |
|--|-----------------------|-----------------------|-------------------------|-----------------------|-----------------------|
| human consumption (1)                    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> |
| animal feed (2)                          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> |
| energy recovery (digestion, bio-gas) (3) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> |
| composting (4)                           | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> |
| Other (5)                                | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> |
| Other (6)                                | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> |

Q21 How frequently have you Donated for:

|  | Never (1)             | Sometimes (2)         | About half the time (3) | Most of the time (4)  | Always (5)            |
|--|-----------------------|-----------------------|-------------------------|-----------------------|-----------------------|
| human consumption (1)                    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> |
| animal feed (2)                          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> |
| energy recovery (digestion, bio-gas) (3) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> |
| composting (4)                           | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> |
| Other (5)                                | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> |
| Other (6)                                | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> |

Q22 Do you have any comments before ending this section of the survey on food donations?

Q24 What is your position on the farm?



Q36 Do you give permission for the researchers to contact you again in the future to follow-up on this study? If so, please enter your contact information.

- ☐ No (1)
- ☐ Yes. My Contact Information is: (2) \_\_\_\_\_

Q35 What is/are your farm's primary agricultural products?

Q27 Please indicate which of the following agricultural products you produce by stating how many edible varieties of each you produce:

- Vegetables (1)
- Fruit (2)
- Eggs (3)
- Meat (4)
- Poultry (5)
- Fish (6)
- Dairy (7)
- Other (8)

Q25 For how many years has this farm been in operation?

- ☐ 1 year (started in 2016) (2)
- ☐ 2-4 years (started in 2013 - 2015) (3)
- ☐ 5-8 years (started in 2009 - 2012) (4)
- ☐ 9-15 years (2002 - 2008) (5)
- ☐ Over 15 years (operations started in 2001 or earlier) (6)

Q26 Please describe how much land you have.

What is the size of the total land base/parcel you have access to? (acres) (1)

How much total land do you cultivate or pasture? (acres) (2)

Q28 Which of the following agricultural systems do you practice on your farm? (Mark all that apply.)

- ☐ Conventional (1)
- ☐ Organic (Certified) (2)
- ☐ Transitional (Working towards Organic Certification) (3)
- ☐ Non-Certified Organic (Including Integrated Pest Management Techniques) (4)
- ☐ Heirloom or Heritage (5)
- ☐ Biodynamic (6)
- ☐ Hothouse (7)
- ☐ Hydroponic (8)
- ☐ Permaculture (9)
- ☐ Non-GMO (10)
- ☐ Other (Please specify) (11) \_\_\_\_\_

Q29 Which of the following marketing channels do you use?

- ☐ Direct to Consumer (1)
- ☐ Direct to Retail (2)
- ☐ Wholesale (3)
- ☐ Other (4) \_\_\_\_\_

Display This Question:

If Direct to Consumer; Which of the following marketing channels do you use? Direct to Consumer Is Selected

Q30 Direct to Consumer

- % of Gross Sales through Community Supported Agriculture (CSA) (1)
- % of Gross Sales at Farmers Markets (2)
- % of Gross Sales at On-Farm Retail (3)
- % of Gross Sales at Temporary Roadside Stands (4)
- % of Gross Sales through U-Pick/Pick-Your-Own (5)
- Other (6)

Display This Question:

If Direct to Retail; Which of the following marketing channels do you use? Direct to Retail Is Selected

Q31 Direct to Retail

- % of Gross Sales to Grocers/Other Retailers (1)
- % of Gross Sales to Food Banks (2)
- % of Gross Sales to Public Institutions (e.g. schools/hospitals) (3)
- % of Gross Sales to Restaurants (4)
- Other (5)

Display This Question:

If Wholesale; Which of the following marketing channels do you use? Wholesale Is Selected

Q32 Wholesale

- % of Gross Sales to Distributors (1)
- % of Gross Sales to Marketing Boards / Commodity Marketers (2)
- % of Gross Sales to Wholesalers (3)
- Other (4)

Display This Question:

If Other; Which of the following marketing channels do you use? Other Is Selected

Q33 Other

- % of Gross Sales to ... (1)
- % of Gross Sales to ... (2)
- % of Gross Sales to ... (3)

Q37 Do you have any final comments before ending this survey?

## 2016, 2017 & 2018 Food Donation Survey

---

### Start of Block: Past Donation History

Q1 In 2016, how often did you donate fresh edible agricultural products?

- ☐ Not at all (1)
  - ☐ Once (2)
  - ☐ Less than once a month (3)
  - ☐ Once a month (4)
  - ☐ Several times a month (5)
  - ☐ Once a week (6)
  - ☐ More than once a week (7)
- 

Q2 In 2017, how often did you donate fresh edible agricultural products?

- ☐ Not at all (1)
  - ☐ Once (2)
  - ☐ Less than once a month (3)
  - ☐ Once a month (4)
  - ☐ Several times a month (5)
  - ☐ Once a week (6)
  - ☐ More than once a week (7)
-

Q3 In 2018, how often did you donate fresh edible agricultural products?

- ☐ Not at all (1)
- ☐ Once (2)
- ☐ Less than once a month (3)
- ☐ Once a month (4)
- ☐ Several times a month (5)
- ☐ Once a week (6)
- ☐ More than once a week (7)

---

*Display This Question:*

*If Q1 = Once*

*Or Q1 = Less than once a month*

*Or Q1 = Once a month*

*Or Q1 = Several times a month*

*Or Q1 = Once a week*

*Or Q1 = More than once a week*

*Or Q2 = Once*

*Or Q2 = Less than once a month*

*Or Q2 = Once a month*

*Or Q2 = Several times a month*

*Or Q2 = Once a week*

*Or Q2 = More than once a week*

*Or Q3 = Once*

*Or Q3 = Less than once a month*

*Or Q3 = Once a month*

*Or Q3 = Several times a month*

*Or Q3 = Once a week*

*Or Q3 = More than once a week*

Q2 Thinking of your past donations, to which of the following have you donated fresh agricultural products? (Please choose all that apply.)

- ☐ Church or religious group (1)
- ☐ Community/civic improvement organization or project (2)
- ☐ Fire, police, or emergency service department (3)
- ☐ Food bank (4)
- ☐ Health care institution (hospital, ambulance service, nursing home, etc.) (5)
- ☐ Schools (K – 12) (6)
- ☐ Service or fraternal organization (Lions, Rotary, etc.) (7)
- ☐ Youth group (Scouts, 4-H, Sports teams, etc.) (8)
- ☐ Veterans group (9)
- ☐ Other (please specify) (10) \_\_\_\_\_

---

*Display This Question:*

*If Q1 = Not at all*

*And Q2 = Not at all*

*And Q3 = Not at all*

Q4 For farmers who do not donate, there are many reasons why. How relevant are each of the following reasons in stopping you from donating? (Please rate each line.)

|   | Not at all<br>Relevant<br>(1) | Slightly<br>Relevant (2) | Moderately<br>Relevant (3) | Relevant (4)          | Very<br>Relevant (5)  |
|---|-------------------------------|--------------------------|----------------------------|-----------------------|-----------------------|
| All that I grow is contractually committed (1)          | <input type="radio"/>         | <input type="radio"/>    | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> |
| Harvesting for donation labour costs (2)                | <input type="radio"/>         | <input type="radio"/>    | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> |
| Harvesting for donation time requirements (3)           | <input type="radio"/>         | <input type="radio"/>    | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> |
| Harvesting for donation transport costs (4)             | <input type="radio"/>         | <input type="radio"/>    | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> |
| I have no product(s) suitable for donation (5)          | <input type="radio"/>         | <input type="radio"/>    | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> |
| I compost/re-use what I could donate on my own farm (6) | <input type="radio"/>         | <input type="radio"/>    | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> |
| I worry about the ramifications of illness (7)          | <input type="radio"/>         | <input type="radio"/>    | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> |
| No one has asked me to donate (8)                       | <input type="radio"/>         | <input type="radio"/>    | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> |
| There have not been causes I want to support (9)        | <input type="radio"/>         | <input type="radio"/>    | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> |
| Other (please specify & rank) (10)                      | <input type="radio"/>         | <input type="radio"/>    | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> |
| Other (please specify & rank) (11)                      | <input type="radio"/>         | <input type="radio"/>    | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> |

Display This Question:

If Q1 != Not at all

And Q2 != Not at all

And Q3 != Not at all

Q5 Thinking of why you donated in 2016, how important were each of the following reasons in motivating you to donate? (Please rate each line.)

|   | Not at all<br>Important (1) | Slightly<br>important (2) | Moderately<br>important (3) | Important (4)         | Very<br>important (5) |
|---|-----------------------------|---------------------------|-----------------------------|-----------------------|-----------------------|
| Being asked<br>to give (1)                              | <input type="radio"/>       | <input type="radio"/>     | <input type="radio"/>       | <input type="radio"/> | <input type="radio"/> |
| Getting<br>recognition<br>from your<br>community<br>(2) | <input type="radio"/>       | <input type="radio"/>     | <input type="radio"/>       | <input type="radio"/> | <input type="radio"/> |
| Helping<br>people in<br>need (3)                        | <input type="radio"/>       | <input type="radio"/>     | <input type="radio"/>       | <input type="radio"/> | <input type="radio"/> |
| Observing<br>religious<br>obligations<br>(tithing) (4)  | <input type="radio"/>       | <input type="radio"/>     | <input type="radio"/>       | <input type="radio"/> | <input type="radio"/> |
| Preventing<br>food waste<br>(5)                         | <input type="radio"/>       | <input type="radio"/>     | <input type="radio"/>       | <input type="radio"/> | <input type="radio"/> |
| Receiving tax<br>benefits (6)                           | <input type="radio"/>       | <input type="radio"/>     | <input type="radio"/>       | <input type="radio"/> | <input type="radio"/> |
| Wanting to<br>give back to<br>your<br>community<br>(7)  | <input type="radio"/>       | <input type="radio"/>     | <input type="radio"/>       | <input type="radio"/> | <input type="radio"/> |
| Other (please<br>specify &<br>rank) (8)                 | <input type="radio"/>       | <input type="radio"/>     | <input type="radio"/>       | <input type="radio"/> | <input type="radio"/> |
| Other (please<br>specify &<br>rank) (9)                 | <input type="radio"/>       | <input type="radio"/>     | <input type="radio"/>       | <input type="radio"/> | <input type="radio"/> |

---

*Display This Question:*

*If Q1 != Not at all*

*And Q2 != Not at all*

*And Q3 != Not at all*

Q6 Have you ever claimed a charitable tax credit for your donations of agricultural products?

- ☐ Yes (1)
- ☐ No (2)

---

*Display This Question:*

*If Q1 != Not at all*

*And Q2 != Not at all*

*And Q3 != Not at all*

Q7 Are you planning to claim or have you ever claimed the 2016 – 2020 B.C. Farmers' Food Donation Tax Credit for any of your donations?

- ☐ Yes (1)
- ☐ No (2)

---

*Display This Question:*

*If Q6 = No*

*And Q7 = No*

Q8 There are many reasons why farmers do not claim tax credits. What is the main reason why you have not? (Please choose one only.)

- ☐ I do not donate (1)
- ☐ I did not know I could receive a tax credit (2)
- ☐ I do not pay enough in taxes to need a credit (3)
- ☐ I do not track the amount I donate (4)
- ☐ I do not know the steps required to claim a tax credit (5)
- ☐ The organization to which I donate does not provide tax credit receipts (6)
- ☐ The amount of time required to claim the credit makes it not worth my while (7)
- ☐ Other (Please specify) (8) \_\_\_\_\_



---

*Display This Question:*

*If Q1 != Not at all*

*And Q2 != Not at all*

*And Q3 != Not at all*

Q9 Yearly, what is an approximate retail value of the edible agricultural products you donate?

- ☐ \$1 to \$99 (1)
- ☐ \$100 to \$250 (2)
- ☐ \$251 to \$500 (3)
- ☐ \$500 to \$999 (4)
- ☐ \$1,000 to \$2,499 (5)
- ☐ \$2,500 to \$4,999 (6)
- ☐ \$5,000 to \$9,999 (7)
- ☐ \$10,000 or more (8)
- ☐ I track my donations only by weight and the approximate weight was (9) \_\_\_\_\_
- ☐ I track in another manner, which is (10) \_\_\_\_\_
- ☐ I donate, but I do not track my donations (11)
- ☐ I prefer not to say (12)
- ☐ Other (13) \_\_\_\_\_

End of Block: Past Donation History

---

Start of Block: Future Donation Intention

Q10 Given that the B.C. Farmers' Food Donation Tax Credit enables you to receive additional non-refundable tax credits of 25% of retail value for all agricultural products donated to charities, does this new tax law result in you wanting to increase in your food donations?

- ☐ Most Definitely Yes (1)
  - ☐ Probably Yes (2)
  - ☐ Unknown (3)
  - ☐ Probably Not (4)
  - ☐ Definitely Not (5)
-

Q11 What is your primary reason for the above decision?

---

---

---

---

---

Q12 Are there any additional reasons for the above decision? If so, please specify.

---

---

---

---

---

Q13 Considering the financial impact of a 25% non-refundable tax credit, how much of a difference do you perceive this would make to your farm's profit?

- ☐ No difference (1)
- ☐ Very small impact (2)
- ☐ Small impact (3)
- ☐ Medium impact (4)
- ☐ Large impact (5)

End of Block: Future Donation Intention

---

Start of Block: Producer Food Loss

Q14 Thinking of what happens with fresh food grown for human consumption when it is not sold through your primary marketing channels, how frequently do the following occur?

|                        | Never (1)             | Infrequently<br>(2)   | Sometimes<br>(3)      | Frequently<br>(4)     | Always (5)            |
|------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Sold at a Discount (1) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Used on Farm (2)       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Donated (3)            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Other (4)              | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Other (5)              | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

---

Q15 Thinking about a mature crop, there are many reasons why fresh agricultural product suitable for human consumption does not get consumed by humans. How frequently do these reasons occur at your farm? (Please rate each line.)

|  | Never (1)             | Infrequently (2)      | Sometimes (3)         | Frequently (4)        | Always (5)            |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Natural causes, including weather, disease and pests (1)                             | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Cosmetic standards, leaving product unharvested or out-graded post-harvest (2)       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Supply and demand unpredictability, resulting in price changes, excessive supply (3) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Technical causes, damaging due to harvesting tools, improper storage (4)             | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Labour issues, leading to labour shortages at harvest time (5)                       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Cost issues, leading to decisions to not harvest, store, or transport (6)            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Timing Issues, resulting in not enough time to get products to sale (7)              | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Other (please specify) (8)   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

---

Q16 If you wish, please further describe reasons why food suitable for human consumption is not consumed by humans at your farm:

---

---

---

---

---

---

Q17 Do you have any additional comments before ending this survey on food donations?

---

---

---

---

---

End of Block: Producer Food Loss

---

## **Appendix O: Survey Instrument for Market and Food Bank Managers**

### **Interviews on Food Donation Tax Credits : Implications for contributions**

#### **Organization's Connection to Farmers' Food Donations**

1. Are you aware of the farmers you work with at your organization donating fresh food? Please explain.
2. Do you ever speak with or hear farmers talking about their underlying reasons for donating edible food? If yes, what do you hear?
3. Do you ever speak with or hear farmers talking about their barriers to donating edible food?  
If yes, what do you hear?

#### **Organization's Awareness of Tax Credit**

1. Are you aware of the B.C. Farmers' Food Donation Tax Credit, unveiled in February 2016?
2. If yes, please explain how you remember learning of this credit.
3. In your opinion, is the tax credit a useful tool to support additional farm donations of fresh food?
4. Do you think the tax credit could be more effective if:
  - the amount spent on transportation was acknowledged in the credit?
  - the amount spent on additional labour was acknowledge in the credit?
  - some part of the tax credit was refundable?
  - other?
5. Does your organization provide any support for farmers wishing to donate?  
If yes, please explain.
6. Can you think of ways that either the government or your organization could incentivize farmers to increase donations? Please explain, especially the methods you view as most effective.

#### **Organization's Education of Farmers**

1. Does your organization help to recruit, educate, train or inform farmers of the tax credit? If so, how is this recruitment, education, training, and information conducted?
2. What are examples of education, training or information you have provided in 2016? Plan for 2017?

**Organization / Personal Demographics**

1. With what organization do you work? May I contact you again related to this research?
2. What is your title at the organization?
3. For how many years have you held this position?
4. With how many farmers does your organization directly work? Do you work with other farmers indirectly, including through a distributor?
5. Please describe the size of the farms, and types of product produced.
6. What are your main responsibilities related to these farmers?

**Additional Comments** Any final comments before we end?



## **Appendix P: Research Permission Request to Board of Directors**

To: bod@artisanmarkets.ca

Subject: Surveying Farming Vendors at Artisan Markets

Hello Bernie, Darren, Inga, Mhora, and Rick,

To follow up on our conversations about my graduate thesis at Colorado State University, I'm planning to survey farmers in fall 2016 towards the end of the growing season. May I include Artisan Farmers' market vendors and market managers in my research?

My study is titled "Food Donation Tax Credits: Implications for contributions to food banks" and its purpose is to investigate if the tax credit encourages farmers to donate food to charities. Participating farmers and market managers will be asked to participate in a 5-10 minute survey focused on past and future donation agricultural donations.

Please don't hesitate to contact me with any questions. It is my hope that the results of the study will be useful to policymakers and farmers, supporting effective future policies that support improved food security for low income consumers and viability for producers. I will make sure to share all results with your organization.

Thank you,  
Tara Immell  
c. 604-446-8272  
e. tara.immell@colostate.edu

## **Appendix Q: Spoken Script with Farmers to Gain Interview Consent**

Hello, my name is Tara Immell and I am a graduate student researcher from Colorado State University in the College of Agricultural Sciences conducting a research study entitled 'Food Donation Tax Credits : Implications for contributions to food banks'. The Principal Investigator is Becca Jablonski in the Department of Agricultural & Resource Economics and I am the Co-Principal Investigator in the Department of Agriculture.

I would like to ask you twenty questions about your farm, past food donation practices, and plans for future donations.

Participation will take approximately fifteen minutes. Your participation in this research is voluntary. If you decide to participate in the study, you may withdraw your consent and stop participation at any time without penalty.

We will be collecting your name for consent purposes only. When we report and share the data with others, we will combine the data from all participants. There are no known risks or direct benefits to you, but we hope to gain more knowledge on how food donations are viewed by farmers in B.C. so that we can make recommendations for future policies that most effectively support improved farm viability.

Would you like to participate?

If no: Thank you for your time.

If yes: Let's Proceed. Here is a consent form for you to sign. (wait for signature). And now, for the survey questions. Do you prefer to take the survey verbally, with me inputting the answers on this iPad or do you prefer to directly read and input your own answers on this iPad?

## **Appendix R: Spoken Script with Managers to Gain Interview Consent**

Hello, my name is Tara Immell and I am a graduate student researcher from Colorado State University in the College of Agricultural Sciences conducting a research study entitled 'Food Donation Tax Credits : Implications for contributions to food banks. The Principal Investigator is Dr. Becca Jablonski in the Department of Agricultural & Resource Economics and I am the Co-Principal Investigator in the Department of Agriculture.

I would like to interview you for fifteen to thirty minutes about your role at work, your organization's training of farmers and your knowledge of farmers' food donation practices. Your participation in this research is voluntary. If you decide to participate in the study, you may withdraw your consent and stop participation at any time without penalty.

We will be collecting your name for consent purposes only, unless you agree to be quoted. When we report and share the data with others, we will combine the data from all participants. There are no known risks or direct benefits to you, but we hope to gain more knowledge on how food donations are viewed by farmers in B.C.

Would you like to participate?

If no: Thank you for your time.

If yes: Let's Proceed. Here is a consent form for you to sign. (wait for signature). And now, for the interview questions.

(if the person agreed to be audio recorded)

Thank you for agreeing to allow an audio recording. I am turning it on now.

(if the person did not agree to be audio recorded)

As we will not be audio recording, I will begin taking notes now.

## Appendix S: Consent Form for Farmers

### Consent to Participate in a Research Study Colorado State University

**TITLE OF STUDY:** Food Donation Tax Credits: Implications for contributions to food banks

**PRINCIPAL INVESTIGATOR:** Dr. Becca Jablonski, Assistant Professor & Food Systems Extension Economist, College of Agricultural Sciences, Agricultural & Resource Economics, becca.jablonski@colostate.edu, 970-491-6133

**CO-PRINCIPAL INVESTIGATOR:** Tara Immell, Graduate Student, College of Agricultural Sciences, tara.immell@colostate.edu, 604-446-8282

As a farmer or farmworker in British Columbia who sells at a farmers' market in Burnaby, West Vancouver or North Vancouver, we are asking you to participate in this research to better understand and evaluate the impact of the Province's new food donation tax credit. Participation in this survey will take appropriately 15-20 minutes. Your participation in this research is voluntary. If you decide to participate in the study, you may withdraw your consent and stop participating at any time without penalty or loss of benefits to which you are otherwise entitled. There are no known risks associated with the questions you will be asked. Though we cannot compensate you for your participation in the study at this time, we hope that the results will be useful to policymakers and farmers, and support effective future policies that support low income consumers and producers. All responses will remain confidential; data will only be shared in aggregate form.

If you have questions about the study, you can contact the principal investigator, Dr. Becca Jablonski at becca.jablonski@colostate.edu, 970-491-6133 or Tara Immell at tara.immell@colostate.edu, 604-446-8272. If you have any questions about your rights as a volunteer in this research, contact the IRB Coordinator at: the CSU IRB at: RICO\_IRB@mail.colostate.edu; 970-491-1553. We will give you a copy of this consent form to take with you.

**WHAT ELSE DO I NEED TO KNOW?** There may be cases when the researchers would like to contact you to follow-up. Do you give permission for the researchers to contact you again in the future? Please initial next to your choice below.

☐ Yes \_\_\_\_\_ (initials)

☐ No \_\_\_\_\_ (initials)

Please initial by each research activity listed below that you are volunteering to participate in.

☐ I will participate in an interview today \_\_\_\_\_ (initials)

☐ Researchers may contact me again \_\_\_\_\_ (initials)

Your signature acknowledges that you have read the information stated and willingly sign this consent form. Your signature also acknowledges that you have received, on the date signed, a copy of this document containing two \_\_\_\_\_ pages.

\_\_\_\_\_  
Signature of person agreeing to take part in the study

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed name of person agreeing to take part in the study

\_\_\_\_\_  
Name of person providing information to participant

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Research Staff

## Appendix T: Consent Form for Managers

### Consent to Participate in a Research Study: Colorado State University

**TITLE OF STUDY:** Food Donation Tax Credits: Implications for contributions to food banks

**PRINCIPAL INVESTIGATOR:** Dr. Becca Jablonski, Assistant Professor & Food Systems Extension Economist, College of Agricultural Sciences, Agricultural & Resource Economics, becca.jablonski@colostate.edu, 970-491-6133

**CO-PRINCIPAL INVESTIGATOR:** Tara Immell, Graduate Student, College of Agricultural Sciences, tara.immell@colostate.edu, 604-446-8282

As a worker at an agricultural organization in British Columbia, we are asking you to participate in this research to better understand and evaluate the impact of the Province's new food donation tax credit. Participation in this survey will take appropriately 15-20 minutes. Your participation in this research is voluntary. If you decide to participate in the study, you may withdraw your consent and stop participating at any time without penalty or loss of benefits to which you are otherwise entitled. There are no known risks associated with the questions you will be asked. Though we cannot compensate you for your participation in the study at this time, we hope that the results will be useful to policymakers and farmers, and support effective future policies that support low income consumers and producers. All responses will remain confidential; data will only be shared in aggregate form.

If you have questions about the study, you can contact the principal investigator, Dr. Becca Jablonski at becca.jablonski@colostate.edu, 970-491-6133 or Tara Immell at tara.immell@colostate.edu, 604-446-8272. If you have any questions about your rights as a volunteer in this research, contact the IRB Coordinator at: the CSU IRB at: RICRO\_IRB@mail.colostate.edu; 970-491-1553. We will give you a copy of this consent form to take with you.

The researchers would like to audiotape your interview to be sure that your comments are accurately recorded. Only our research team will have access to the audiotapes, and they will be destroyed when they have been transcribed.

Do you give the researchers permission to audiotape your interview? Please initial next to your choice below.

- ☐ Yes, I agree to be digitally recorded \_\_\_\_\_ (initials)
- ☐ No, do not audiotape my interview \_\_\_\_\_ (initials)

Following the transcription of your audio recording, I will summarize the data you provided and would like to contact you again to confirm its content. Do you give permission for the researchers to contact you again in the future to follow-up on this study Please initial next to your choice below.

- ☐ Yes \_\_\_\_\_ (initials)
- ☐ No \_\_\_\_\_ (initials)

Please initial by each research activity listed below that you are volunteering to participate in.

- ☐ I will participate in an interview today \_\_\_\_\_ (initials)
- ☐ Researchers may contact me again \_\_\_\_\_ (initials)

Please let us know if you would like your comments to remain confidential or attributed to you. Please initial next to your choice below.

- ☐ I give permission for comments I have made to be shared using my exact words and to include my (name/position/title). \_\_\_\_\_ (initials)
- ☐ You can use my data for research and publishing, but do NOT associate my (name/position/title) with direct quotes. \_\_\_\_\_ (initials)

Your signature acknowledges that you have read the information stated and willingly sign this consent form. Your signature also acknowledges that you have received, on the date signed, a copy of this document containing \_\_\_\_ two pages.

\_\_\_\_\_  
Signature of person agreeing to take part in the study

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed name of person agreeing to take part in the study

\_\_\_\_\_  
Name of person providing information to participant

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Research Staff

## **Appendix U: Emailed Consent with On-Line Survey Link**

Dear Participant,

My name is Tara Immell and I am a researcher from Colorado State University in the College of Agricultural Sciences. We are conducting a research study on the 2016 – 2020 B.C. Farmers' Food Donation Tax Credit. As a farmer or farmworker in British Columbia who sells at a farmers' market in Metro Vancouver or the Fraser Valley, we are asking you to participate in this research to better understand and evaluate the impact of the Province's new food donation tax credit.

The title of our project is Food Donation Tax Credits: Implications for contributions to food banks. The Principal Investigator is Dr. Becca Jablonski, Assistant Professor & Food Systems Extension Economist, College of Agricultural Sciences, Agricultural & Resource Economics, [becca.jablonski@colostate.edu](mailto:becca.jablonski@colostate.edu), 970-491-6133 and I am the Co-Principal Investigator, Tara Immell, Graduate Student, College of Agricultural Sciences, [tara.immell@colostate.edu](mailto:tara.immell@colostate.edu), 604-446-8282.

We would like you to take an online survey. Participation will take appropriately 15-20 minutes. Your participation in this research is voluntary. If you decide to participate in the study, you may withdraw your consent and stop participating at any time without penalty or loss of benefits to which you are otherwise entitled. There are no known risks associated with the questions you will be asked. Though we cannot compensate you for your participation in the study at this time, we hope that the results will be useful to policymakers and farmers, and support effective future policies that support low income consumers and producers. All responses will remain confidential; data will only be shared in aggregate form.

To indicate your willingness to participate in this research and to continue on to the survey, click here [https://colostateag.co1.qualtrics.com/jfe/form/SV\\_bwiQxGkQMnIB1BP](https://colostateag.co1.qualtrics.com/jfe/form/SV_bwiQxGkQMnIB1BP).

If you have questions about the study, you can contact the principal investigator, Dr. Becca Jablonski at [becca.jablonski@colostate.edu](mailto:becca.jablonski@colostate.edu), 970-491-6133 or Tara Immell at [tara.immell@colostate.edu](mailto:tara.immell@colostate.edu), 604-446-8272. If you have any questions about your rights as a volunteer in this research, contact the IRB Coordinator at: the CSU IRB at: [RICRO\\_IRB@mail.colostate.edu](mailto:RICRO_IRB@mail.colostate.edu); 970-491-1553.

Dr. Becca Jablonski  
Assistant Professor & Food Systems Extension  
Economist, College of Agricultural Sciences  
Agricultural & Resource Economics  
[becca.jablonski@colostate.edu](mailto:becca.jablonski@colostate.edu)  
970-491-6133

Tara Immell, Graduate Student  
College of Agricultural Sciences  
[tara.immell@colostate.edu](mailto:tara.immell@colostate.edu)  
604-446-8282

## Appendix V: Food Tracking Proposal

### 3. Procedures

- a) **Describe in chronological order of event(s) how the activities will be conducted, providing information about all procedures (e.g. interventions/interactions with subjects, data collection, photographing, audio and video recording), including follow up procedures.**

For adding tracking of distributed food:

Using food asset maps at <http://www.vch.ca/public-health/nutrition/food-asset-map>, and other community partner resources, potential recipients of fresh produce donations, as defined by the B.C. Farmers Food Donation Tax Credit, will be identified.

The researcher will record the amount of total food, including fresh fruit and vegetables, distributed at these food distribution outlets who are eligible to receive donations from farmers.

For example, The Greater Vancouver Food Bank is a potential recipient of fresh produce donations and distributes food at 13 locations weekly to over 27,500 people weekly in Metro Vancouver. The food bank provides clients with a 2-3 day food supplement weekly, except on weeks when social assistance cheques arrive. Another example of a potential recipient is the Harvest Project in North Vancouver with one location which provides two free grocery bags of food twice a week for up to 15 bags in total, after which a \$1 donation per bag is made. The Harvest Project also operates a free grocery store for a \$1 donation per month. A final example is Ryan's Rainbow in Burnaby, another potential recipient of fresh produce donations, where food distribution is offered for two hours once a week.

- i) **Be sure to identify what procedures are experimental and what are standard of care or established practice for the condition/situation.**

As a local community member, the researcher is eligible to be a client receiving food assistance, and can collect food to document the food received. There will be no surveying or interviewing while visiting food distribution sites as a client to pick up food. The focus will be on documenting the amount of food received, especially the fresh fruit and vegetables. Food will be counted, weighed and photographed. All discussion in the research from tracking distributed food will be about the food.

- b) **Explain who will conduct the procedures and where and when they will take place. Indicate the frequency and duration of visits/sessions as well as the subject's total time commitment for the study. Include how the data will be collected (i.e. in person or online).**

Tara Immell, the co-principal investigator, will conduct the procedures where she lives in British Columbia, Vancouver, Canada. Data will be collected in person and online weekly over the course of March, April, May, June, July and August.



## Appendix W: Institutional Review Board (IRB) Approval Letters



Research Integrity & Compliance Review Office  
Office of Vice President for Research  
Fort Collins, CO 80523-2011  
(970) 491-1553  
FAX (970) 491-2293

**Date:** September 27, 2016

**To:** Becca Jablonski, Ph.D., College of Agricultural Sciences  
Tara Immell, College of Agricultural Sciences

**From:** IRB Coordinator, Research Integrity & Compliance Review Office  
(RICRO\_IRB@mail.colostate.edu)

**Re:** Food Donation Tax Credits: Implications for Contributions to Food Banks

**Funding:** Unfunded

**IRB ID:** 228 -17H      **Review Date:** September 27, 2016  
**This project is valid from three years from the review date.**

---

The Institutional Review Board (IRB) Coordinator has reviewed this project and has declared the study exempt from the requirements of the human subject protections regulations with conditions as described above and as described in 45 CFR 46.101(b):

Category 2 - Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) information obtained is recorded in such manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

---

The IRB determination of exemption means that:

- **This project is valid for three years from the initial review.** After the three years, the file will be closed and no further research should be conducted. If the research needs to continue, please let the IRB Coordinator know before the end of the three years. You do not need to submit an application for annual continuing review.
- You must carry out the research as proposed in the Exempt application, including obtaining and documenting (signed) informed consent if stated in your application or if required by the IRB.
- Any modification of this research should be submitted to the IRB through an email to the IRB Coordinator, prior to implementing any changes, to determine if the project still meets the Federal criteria for exemption.
- Please notify the IRB Coordinator (RICRO\_IRB@mail.colostate.edu) if any problems or complaints of the research occur.

Please note that you must submit all research involving human participants for review by the IRB. **Only the IRB or designee may make the determination of exemption**, even if you conduct a similar study in the future.



Research Integrity & Compliance Review Office  
Office of Vice President for Research  
Fort Collins, CO 80523-2011  
(970) 491-1553  
FAX (970) 491-2293

DATE: January 17, 2017

TO: Becca Jablonski, Ph.D., College of Agricultural Sciences  
Tara Immell, College of Agricultural Sciences

FROM: IRB Coordinator, Research Integrity & Compliance Review Office  
(RICRO\_IRB@mail.colostate.edu)

TITLE: Food Donation Tax Credits: Implications for Contributions to Food Banks

Grant Title: Unfunded

IRB ID: 228-17H

Review Date: January 17, 2017

**This project is valid for three years from the review date.**

The Institutional Review Board (IRB) Coordinator has reviewed the following modifications of this project:

1. Updated method of farmer survey cohort to institute an online survey with email consent for this population;
2. Updated timeline for obtaining farmer survey data for January/February 2017

and has declared the study remains exempt from the requirements of the human subject protections regulations as described in 45 CFR 46.101(b). The IRB determination of exemption means that:

- You do not need to submit an application for annual continuing review.
- You must carry out the research as proposed in the IRB application, including obtaining and documenting (signed) informed consent if stated in your application or if required by the IRB.
- Any modification of this research should be submitted to the IRB through an email to the RICRO IRB Coordinator (RICRO\_IRB@mail.colostate.edu), prior to making any changes, to determine if the project still meets the Federal criteria for exemption. If it is determined that exemption is no longer warranted, then an IRB proposal will need to be submitted and approved before proceeding with data collection.
- Please notify the IRB (RICRO\_IRB@mail.colostate.edu) if any problems or complaints of the research occur.

Please note that you must submit all research involving human participants for review by the IRB. Only the IRB may make the determination of exemption, even if you conduct a similar study in the future.



Research Integrity & Compliance Review Office  
Office of Vice President for Research  
Fort Collins, CO 80523-2011  
(970) 491-1553  
FAX (970) 491-2293

DATE: February 28, 2017

TO: Becca Jablonski, Ph.D., College of Agricultural Sciences  
Tara Immell, College of Agricultural Sciences

FROM: IRB Coordinator, Research Integrity & Compliance Review Office  
(RICRO\_IRB@mail.colostate.edu)

TITLE: The B.C. Farmers' Food Donation Tax Credit: Investigating Usage Among Farmers' Market Vendors

Grant Title: NA

IRB ID: 228-17H

Review Date: February 28, 2017  
This project is valid for three years from the review date.

The Institutional Review Board (IRB) Coordinator has reviewed the following modifications of this project:

1. Expanded recruitment to include Farmers' Market Managers and
2. Updated title from Food Donation Tax Credits: Implications for Contributions to Food Banks to currently listed above; updated consent and interview to reflect changes

and has declared the study remains exempt from the requirements of the human subject protections regulations as described in 45 CFR 46.101(b). The IRB determination of exemption means that:

- You do not need to submit an application for annual continuing review.
- You must carry out the research as proposed in the IRB application, including obtaining and documenting (signed) informed consent if stated in your application or if required by the IRB.
- Any modification of this research should be submitted to the IRB through an email to the RICRO IRB Coordinator (RICRO\_IRB@mail.colostate.edu), prior to making any changes, to determine if the project still meets the Federal criteria for exemption. If it is determined that exemption is no longer warranted, then an IRB proposal will need to be submitted and approved before proceeding with data collection.
- Please notify the IRB (RICRO\_IRB@mail.colostate.edu) if any problems or complaints of the research occur.

Please note that you must submit all research involving human participants for review by the IRB. Only the IRB may make the determination of exemption, even if you conduct a similar study in the future.

**NOTICE OF APPROVAL FOR HUMAN RESEARCH**

**DATE:** March 05, 2019  
**TO:** Boussetot, Jennifer, 1173 Horticulture & Landscape Arch  
Pritchett, James, Immeel, Tara  
**FROM:** Swiss, Evelyn, Senior IRB Coordinator, SBER, CSU IRB Exempt  
**PROTOCOL TITLE:** THE B.C. FARMERS+ FOOD DONATION TAX CREDIT: INVESTIGATING USAGE AMONG FARMERS+  
MARKET VENDORS  
**FUNDING SOURCE:** NONE  
**PROTOCOL NUMBER:** 19-8534H

The CSU Institutional Review Board (IRB) for the protection of human subjects has reviewed the protocol entitled: THE B.C. FARMERS+ FOOD DONATION TAX CREDIT: INVESTIGATING USAGE AMONG FARMERS+ MARKET VENDORS. The project has been approved for the procedures and subjects described in the protocol. This protocol must be reviewed for renewal on a yearly basis for as long as the research remains active. Should the protocol not be renewed before expiration, all activities must cease until the protocol has been re-reviewed.

Important Reminder: If you will consent your participants with a signed consent document, it is your responsibility to use the consent form that has been finalized and uploaded into the consent section of eProtocol by the IRB coordinators. Failure to use the finalized consent form available to you in eProtocol is a reportable protocol violation.

If approval did not accompany a proposal when it was submitted to a sponsor, it is the PI's responsibility to provide the sponsor with the approval notice.

This approval is issued under Colorado State University's Federal Wide Assurance 00000647 with the Office for Human Research Protections (OHRP). If you have any questions regarding your obligations under CSU's Assurance, please do not hesitate to contact us.

Please direct any questions about the IRB's actions on this project to:

IRB Office - (970) 491-1553; [RICRO\\_IRB@mail.Colorstate.edu](mailto:RICRO_IRB@mail.Colorstate.edu)

Evelyn Swiss, Senior IRB Coordinator - (970) 491-1381; [Evelyn.Swiss@Colorstate.edu](mailto:Evelyn.Swiss@Colorstate.edu)

Tammy Felton-Noyle, IRB Biomedical Coordinator - (970) 491-1655; [Tammy.Felton-Noyle@Colorstate.edu](mailto:Tammy.Felton-Noyle@Colorstate.edu)

Felton-Noyle, Tammy

Initial exempt determination has been granted March 5, 2019 to recruit with the approved recruitment and consent procedures. The above-referenced research activity has been reviewed and determined to meet exempt, limited review by the Institutional Review Board under exempt category 2(III) of the 2018 Requirements. Approved documents include: Interview Managers; Tracking Distributed Food; Request for Exemption; Consent Form, Farmers; Consent Form, Managers; Survey Farmers, 2016; Survey Farmers, 2017; Survey Farmers, 2018; Survey Farmers, Longitudinal questions, Spoken Script For Farmers.



## Appendix X: Handout Informing About the Tax Credit in Ontario



### UNDERSTANDING THE FOOD DONATION TAX CREDIT FOR FARMERS

|   |   |
|---|---|
| <h2>WHAT?</h2> <p>What is the Food Donation Tax Credit for Farmers? Passed unanimously as an amendment to the Local Food Act by the Government of Ontario in November 2013, the Food Donation Tax Credit for Farmers is a 25% non-refundable tax credit based on the fair market value of agricultural products donated by Ontario farmers to Ontario food banks and other community food programs on or after January 1, 2014.</p> | <h2>WHO?</h2> <p>Who is eligible to receive this tax credit? Farming corporations, as well as individual Ontario residents and their spouses who carry on the business of farming are eligible to receive this tax credit from a food bank or food program that is a registered charity under the Federal Income Tax Act.</p>   |
| <h2>HOW?</h2> <p>How does this tax credit work? In order for a farmer to claim this credit, food banks must issue a gift in kind donation receipt which outlines in detail the description of the product donated, AND its fair market value. Food banks, in partnership with the farmer, will be responsible for determining the fair market value of the donated agricultural product.</p>  | <h2>WHEN?</h2> <p>When does a donation qualify for this tax credit? The definition of "agricultural product" includes meat or meat by-products, eggs, dairy products, fish, fruits, vegetables, grains, pulses, herbs, honey, maple syrup, mushrooms, nuts, and anything else that is grown, raised on, or harvested from a farm. Donations of live food animals are also eligible for the credit if deemed suitable for, and intended to be processed as food.</p> |

### How does one determine Fair Market Value

According to the Ministry of Agriculture, Food, and Rural Affairs (OMAFRA), "the fair market value is usually the highest dollar value you can get for those goods in an open and unrestricted market, between a willing buyer and a willing seller who are acting independently of each other. The value should be based on the quantity and quality of the goods. If a registered charity needs to verify the value of a donated item, it may wish to seek the assistance of an experienced professional"

### Helpful Tips from the OAFB

- Generally speaking, if the fair market value of the product is less than \$1,000, value can be determined by the food bank or the farmer as long as they are qualified to evaluate the particular donation
- Donations with a fair market value above \$1,000 must have the value determined by three sources. Both [Statistics Canada](#) and [OMAFRA](#) have agricultural product pricing lists that can be used to guide you in determining fair market value. The farmer donating the product may also assist you as the third and final source in determining fair market value.



Figure 37. Handout Informing About the Tax Credit in Ontario

(Understanding, 2016)

## Appendix Y: Promoting the B.C. Farmers' Food Donation Tax Credit



*Figure 38. Social Media Photo Promoting the B.C. Farmers' Food Donation Tax Credit*

To increase awareness of the farmers' food donation tax credit that the British Columbia government announced in Budget 2016, Agriculture Minister Norm Letnick is reaching out to B.C. farmers to get social, get giving and get an income tax credit.

To help people become aware of the program, Letnick is encouraging everyone to post pictures on social media of themselves with agricultural products that are eligible for the credit with the #bcfoodtaxcredit.

(News Release: Harvesting, 2016)