

Food Production and Consumer Trust

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Introduction

Farm and Food Care is an organisation dedicated to informing citizens about the food that they purchase and consume (Farm and Food Care Canada, 2017). This endeavour is a response to the combination of Canadians' lack of knowledge about farming and opinionated views about the food production process (The Canadian Centre for Food Integrity, 2016). The Canadian Centre for Food Integrity (CCFI) indicates the value of informing citizens about the origins of their food: "Public trust... protects your social licence to operate" (CCFI, 2016). If people believe that their food is not being handled safely, governing bodies put regulations into place to ensure that food producers are meeting the public's expectations (CCFI, 2016). While regulation appeases public concerns, the resulting costs associated with forming and implementing the regulation decreases flexibility for the farmers (CCFI, 2016).

According to CCFI (2016), today "50% of Canadians are unsure of whether the Canadian food system is headed down the right track" because of their disconnection from the food production process. Agriculture and Agri-Food Canada discuss a potential reason for this uncertainty: Since most Canadians do not live in an agricultural area, they do not understand the processes behind farming (Agriculture and Agri-Food Canada, 2009). Consumers who do not understand the production process of their food do not have grounds to trust its sustainability, economic viability, ethical production, or any other value that the consumer might have (Meyer, Coveney, Henderson, Ward, & Taylor, 2012; CCFI, 2016).

Investigating the relationship between public involvement in food production and public trust in food will provide insight into closing the information gap between the food manufacturers and those who consume it.

Objectives

Purpose: How does the level of urban citizen's involvement in the food production process reflect their trust towards food related information?

The umbrella question was isolated into smaller objectives to be properly answered. The ways and reasons a person can be involved in the food production process were determined. Finally, what foods citizens classified as trustworthy were deciphered through interviews. Once these factors were determined, the possible correlation between different types of involvement and the trust that citizens have in produce was investigated.

- **Objective 1:** Determine the various ways that urban citizens are involved in the food production process (if they are at all).
- **Objective 2:** Determine the different motivations for involvement in the food production process.
- **Objective 3:** Determine the criteria by which urban citizens decide which food is trustworthy for consumption.

- **Objective 4:** Determine if there a relationship between the trust that urban citizens have with the food industry and their connection to the food production process.

Literature Review

Food supply systems are becoming more sophisticated with each ecological and technological advance (Meyer et al., 2012). This advancement is leading to a significant migration of humans from rural communities to urban centres in search of new employment opportunities. While this comes with many advantages, it is alienating people from the food supply and production chain. This effect requires the consumer to trust the producer without seeing the preparation process (Meyer et al., 2012). Furthermore, supply chains are increasing as demand for cheaper and more exotic goods is rising. Increased supply chain length is leaving more room for human error. As a result, many different governments are regulating the safety of food which may not be destined for the country of production. The resulting distrust in food products is pushing consumers towards more “local” food, which they see as a safe and secure alternative (Carroll & Fahy, 2014). This disconnection is also resulting in some urban citizens turning towards a co-production model and alternative food networks (AFN) (Mincyte & Dobernig, 2016).

The growing distrust amongst urban citizens towards the Agricultural industry is not just concerning for the consumer, but also for the farmers themselves. As regulatory bodies try to quell concerns over environmental impacts and food security, farmers feel restricted in how they are producing (Meyer et al., 2012). In addition, while the regulations help to quell consumers’ fears, they do not help to dispel the concern. Through conducting qualitative research in Australia, Meyer et al. (2012) have found that spatial, cultural, and social distance from the food production process has diminished urban consumers’ trust in food products. This finding is echoed in other studies conducted in China, the United Kingdom and the United States. (Wang, Si, Ng, & Scott, 2015; Mincyte, & Dobernig, 2016; Weatherell, Tregear, & Allinson, 2003). Therefore, a significant amount of research supports the theory that an increase in distance from food sources decreases consumers’ trust in the food that they eat, resulting in the disconnect (Mincyte & Dobernig, 2016; Weatherell, Tregear & Allinson, 2003). An interesting correlation develops with rural citizens. By having some exposure to the agricultural industry, these people are more likely have an increased level of trust with current food production system (Weatherell et al., 2003).

As a counter to the disconnect and to gain more control over their food, some groups of urban citizens are moving towards alternative food networks. These alternative food networks focus on closing the gap between the producer and consumer (Meyer et al., 2012). Many allow the consumer to be the producer, as is the case with backyard gardeners and urban farms (Galhena, Freed & Maredia, 2013). This growing group in the context of North America is mainly populated by white millennial educated young women (Mincyte & Dobernig, 2016). Mincyte & Dobernig cite that one of the main reasons for this trend of young women seeking out opportunities for co-production is a need to gain experience in a working environment, as well as networking opportunities (2016). While Mincyte & Dobernig did not indicate that trust was an issue for the study’s participants, it does highlight that due to their experience working on the urban farm, they developed a

deeper appreciation for the production process (2016). As a result, involvement helped to reduce the disconnect of an urban citizen to the food they consume.

In response to this trend of citizens reaching out to alternative food networks and urban agriculture, regulatory bodies such as the Ontario Government are implementing acts such as the Ontario Local Food Act (2013) (Legislative Assembly of Ontario, 2013). The mandate of this act is to support local food economies, increase awareness of local Ontario food, and encourage the development of new markets (Association of Municipalities of Ontario, 2013, Legislative Assembly of Ontario, 2013). The province, through the municipal board, has also created a set of guidelines based on successful case studies of Urban Agriculture in the province and around the world. The purpose of this resource is for municipalities to promote local food and urban agriculture at all scales within Ontario Communities (Association of Municipalities of Ontario, 2013). Other responses to this trend are the development of food charters which are helping to allocate public lands for the production of food, such as the City of Toronto food charter and the Province of Manitoba food charter (Hardman, & Larkham, 2014).

Weatherell, Tragear, & Allinson (2003) suggest that an increase in face-to-face interaction between consumer and producer contributes to metropolitan citizens' education and understanding of the food system. This then increases the trust that they have in the food production process (Meyer et al., 2012). Weatherell et al. also suggest that more involvement and connection with food production gives consumers a better understanding of the processes (2003).

These resources imply that a stronger relationship between producer and consumer reinforces urban consumers' trust in the food industry. The existing literature on this topic focuses on the connection between metropolitan citizens and rural farmers. While this report addresses the notion that consumers should establish a connection with rural farmers, it focuses on the significance of urban citizens' participation in food production within urban centres. This research investigates whether involvement in urban food production impacts the trust that Guelph citizens have in the food industry.

Methods

After considering the research question and objectives, data was collected through semi-structured interviews. Interviews are beneficial for collecting a variety of opinions based on different experiences. (Dunne, 2016). They facilitate the collection of a wide range of information about various individuals' roles and understandings about alternative food systems. Furthermore, semi-structured interviews follow a set list of questions allowing participants to be flexible with their answers (Dunne, 2016). This allowed for the attainment of information that was necessary to meet the objectives, while also having a conversation that provided additional information about the interviewee's food-related experiences and thoughts.

In order to gain a wide range of responses, people of interest were contacted directly and divided into two different groups. The first group was "producers," which included those who were involved in the food production process. This comprised of

members of urban farms, organizers of community gardens, home gardeners, food forest volunteers, and CSA farmers or managers. Target sampling was used to find producers. These participants were found by searching several CSAs, urban farms, and community gardens on the internet. Each participant was contacted through email and asked if they were interested in participating in a research study. The second group was “non-producers,” which included people who are not involved in the food production process and purchased their food from suppliers. Convenience sampling was used to find non-producers. This method involves contacting participants who were easily accessible. People who had minimal involvement in the food production process were contacted. This was not the most ideal method of sampling, but due to time constraints this was the best option. In total, eight key informants were interviewed: four producers and four non-producers. The preferred interview method was to conduct all interviews in person because it is more personal and provides important nonverbal communication, such as body language. Therefore, the interviewer can fully perceive the way the interviewee feels regarding trust and food. In addition, it was hoped that meeting a person in a relevant location (e.g. a community garden) would inspire more thorough answers. The disadvantage of this method was that it could be difficult to coordinate a meeting with the interviewee. This was evident for two of the key informants. In this case, telephone interviews were conducted instead because they were more convenient for the interviewees. A potential challenge was a lack of interest in participation. However, many responses were received and all eight interviews were conducted within a two-week span. For all interviews, the same set of questions were used. Based on the gathered data correlations between levels of food production involvement and trust in produce information were analysed. This allowed the research’s’ intended objectives to be met.

After the interviews were recorded, they were transcribed for further analysis and assessment. Manifest content analysis was used to determine words or phrases that people used to describe different types of food involvement. This method indicated the general connotation that citizens attribute towards the trustworthiness of food. Further, coding and latent content analysis were used to identify different themes that arose in interviewees’ responses (Dunn, 2016). As part of the interview coding, the data was labelled. Producers were represented as “P” and non-producers as “NP.” These labels are each followed by a number to identify the interviewee. By using these labels, confidentiality of the research participants was maintained. Next, the transcribed interviews were studied to find a variety of different codes and themes, which were then sorted into broader categories. Some of these included food source, motivations, solutions, and information. After this, examples were found from the interviewees responses that would be placed under each of the categories. By identifying themes and categories, similarities and differences between of producers and non-producers were found. Discovering these themes helped to meet the objectives and answer the research question. Quotes from the interviews were also located to support the themes and objectives.

Findings

The interview transcripts demonstrate a variety of findings. Participants defined as producers were involved in urban agriculture in a variety of ways, including: backyard gardens, farmers’ markets, and CSAs. All producers also purchased some produce from

grocery stores. Non-producers' produce sources were mostly grocery stores, with one also mentioning that they visit farmer's markets. Four producers and two non-producers said that they had grown produce that they had eaten in the past; two non-producers said that they had not.

Motivation behind why people purchased produce from the above mentioned locations also varied between producers and non-producers. In general, producers described locality and ethical considerations as decision-making factors, and non-producers chose grocery stores based on convenience. Producers also emphasized supporting the local agricultural community and avoiding produce that had been transported long distances.

Farm and Food Care expressed interest in the question: *What kind of information do you want to know about your produce?* While they mentioned food quality (taste/freshness), people seemed mostly concerned with location, sustainability, and farming practices. They wanted to know if their produce was coming from Canada or elsewhere, with a specific interest in Ontario-grown food. In terms of sustainability, participants wanted to know about the social and ethical considerations of the food's production, such as the labour conditions, the amount of transportation that the food underwent, and environmental sustainability such as soil degradation and pollution. Finally, people wanted to understand the following about the farming practices: Whether it was conventional or organic, the soil practices used, and chemical use. Two of the participants said that they had refrained from purchasing a product because of insufficient labelling of such interests.

Participants described a range of scenarios in which they considered the information that they had about produce seemed unreliable, particularly due to the concern of deceptive labelling. For example, P2 stated:

I've learned enough about certification to know what certifications are real and which ones aren't, like the Organics Canada can make a certified label but if it just says natural or a different word that isn't actually a certification, you know that it's not real, and then I almost have less respect for that product because I feel like they are trying to trick me or something.

NP3 mentioned that the PC Organics label was unreliable based on word of mouth "that the product inside wasn't necessarily grown using organic practices or organic certified." To analyze the data, two Wordles were used. One includes the words used most in interviews with producers (Figure 3), and the other focuses on the most commonly-expressed words by non-producers (Figure 2). The most commonly-used words by producers were: product, farms, farmers, food, local and support. Non-producers mentioned person, people, store, product, and grocery.

One of the broader trends derived from the data was the difference between how producers and non-producers acquired information. Producers all made note of how well they consider food information whether by paying full attention to labels, lots of background research, books, or experience. For example, P2 expressed: “I spend a lot of time in school researching the food system and learning about how food grows and where food comes from.” In contrast, The non-producers also paid attention to labels, but aside from that were reliant on pieces of information they heard by word of mouth or casual reading. NP3 illustrated this point by saying, “A lot of the time I just don’t have that information and I try to make decent choices with huge gaps in that knowledge.” The media by which producers and non-producers acquired information about the produce they purchase is illustrated in Figure 4.

A second trend evident from the interviews was the similarities and differences in concerns surrounding the produce they ate. Some of the main concerns for producers versus non-producers when purchasing food are illustrated in Figure 1. Common concerns included ethical considerations, such as the working conditions of those who grow the produce; environmental externalities such as pollution, soil health, and especially waste production; and where the produce was grown. Interestingly, one concern expressed by non-producers but not by producers were those regarding substances which farmers may be adding to their produce. Pesticides, herbicides, antibiotics, preservatives and chemicals were among the terms mentioned by non-producers. To illustrate this, one NP4 stated, “I avoid anything from China, food wise... can’t trust them, they’ve poisoned lots of animals already.” In contrast, as stated above, the concerns of P4 were more directed towards ethical values: “I think it’s something to keep in mind that most of the world is dealing with [food security issues] day to day, and we are not so much right now.”

A third major trend present in the data was the methods by which interviewees suggested for providing more information about the food production process to consumers. Both producers and non-producers thought that providing more information about the exact location of where produce was grown would benefit consumers. One of the most intriguing findings of the study was that, in addition to this suggestion, all of the interviewed producers and none of the interviewed non-producers suggested that establishing a connection with the food production process or with a farmer directly in order to gain a better understanding of how food is produced. P2 illustrated this suggestion by simply saying, “I wish everyone could just have a family farmer that they could meet and talk to.”

Discussion

The findings and themes of this research project imply that there is a connection between participation in urban agriculture and the way urban citizens perceive food information. The similarities and differences between producers and non-producers in Guelph demonstrate how different levels of food involvement could facilitate different views on the food industry. Those familiar with growing produce displayed an interest in being thoroughly informed about food systems. Furthermore, they believed in establishing

a connection with a farmer in order to gain sufficient knowledge in the food production process.

The similarities between the producers and non-producers bring attention to what consumers' value in food information. Despite their varying levels of knowledge about food systems, almost all participants believed that providing more information through food labels would be beneficial for consumers. This indicates that food labels may be a more effective medium for producers and suppliers to provide food information. As one non-producer noted:

I think the burden should be on the producers to provide all of that information, and if someone doesn't care and doesn't want to look it up then that's cool, that's perfectly up to them... they are putting it into their own body, if they want to be aware of it, it shouldn't be a full-time job to try and figure out where your food is coming from. (NP3)

The source of food products was a repeated concern for both producers and non-producers. However, they expressed that the place of origin may not be enough information to garner trust in a product. Environmental and ethical issues are two other concerns of both producers and non-producers. For example, P3 was quoted as saying "I'm not opposed to more certification because I think you can read as much as you want to... it's nice for it to be available." Therefore, it is implied that in addition to information regarding the source, evidence of sufficient environmental and ethical certification would lead to more trust in food products.

As previously discussed, the types of information that participants wanted to see also varied. A distinction between the two groups of participants is that producers were more inclined to discuss food systems as a whole, on a larger scale. Some producers voiced concerns of food security issues around the world and were aware of what they wanted to support. None of the producers showed concern for chemicals that may be used in food production, which was a prevalent topic for non-producers. This implies that those who are familiar with growing produce are not as skeptical about chemicals or additives in food.

Finally, the group of producers recognized that a direct relationship with a farmer would be beneficial for consumers to understand the food production process. Participation in urban agriculture may provide incentive for consumers to become more interested in developing connections with the agricultural world. As such, involvement in urban food production may subsequently increase the trust that consumers have in food products.

Conclusions/ Recommendations

In moving forward with this study, it is important to note the gaps in research as well as some possible recommendations to improve upon them. To begin, there were 8 total individuals interviewed, including 4 producers and 4 non-producers. Despite the

useful data collected, this may not have been a large enough sample size to represent the entire population of Guelph. In addition to this, the study would benefit from creating more varied and distinct categories of participants. One example of this would be to differentiate people who attend CSAs, but do not garden themselves, from those who do garden within the CSA. Furthermore, only interviewing participants within the City of Guelph could result in different findings than if they were conducted in larger urban area; for example, in these centres, consumers may be more or less disconnected from agricultural practices. For these reasons, a longer study period that investigates an increase in urban agriculture and the effects it may have in various geographic settings is recommended. Specifically, a focus group could be a beneficial method to compare the change in perspectives before and after participating in food production. However, this approach may pose a challenge in finding a group of non-producers willing to participate in a long and extensive study. Despite this difficulty, such an approach could apply and potentially strengthen the findings of the above research project.

Within urban centers, the agriculture industry's long supply chains have contributed to a disconnection between producers and consumers. Also, due to the lack of food production knowledge and understanding, a distrust in the agriculture industry has developed. As such, the following research indicates that there may be an advantage to consumer participation in the food production process. Involvement in alternative food networks may help close the gap between producers and consumers. In fact, producer interviewees expressed an interest in developing consumer-farmer relationships. Increasing an appreciation for urban agriculture may lead to an interest in food production outside of the urban context. Therefore, if there is a correlation between involvement in urban agriculture and knowledge in the food production process, an increase in production involvement might show promising results. For instance, involvement could lead to more intensive and more accurate research into the food industry. However, a possible weakness is gaining government or non-government organizations to help fund these projects.

In terms of information people want to know more about, individuals were most concerned with location, sustainability, and farming practices. In addition, food labels were the most common medium through which people acquire produce. Furthermore, all interviewed participants bought at least a portion, if not all, of their produce from the grocery store. Therefore, a possible initiative might be to direct focus towards grocery stores, encouraging them to start providing information about various products. Since grocery stores already have the infrastructure in the form of 'help desks', including a database that provides scientific details about location, sustainability, and farming practices could be done fairly easily. However, a possible weakness could be in receiving such information from the food sources. Without an incentive, not all producers may be willing to participate out of fear of judgment and/or loss of revenue. Nevertheless, being pressured may encourage producers to change their farming practices to ones that reflect more sustainable outcomes. As such, changing the way grocery stores share information about produce is only the beginning to a long process of changing the way consumers trust food sources.

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Appendices

Interview Questions

These questions were asked to both the producers and non-producers.

1. Have you ever grown produce that you have eaten?
2. Where do you often get your produce/food for the week?
3. How much of the produce you eat comes directly from the person who grows it?
4. What are the reasons you prefer to get your produce from these sources?
5. What are your concerns, if any, with the current food supply chain? (The production, transportation, packaging, and/or stocking?)
6. What kind of information do you want to know about your produce?
7. Where do you get this information from?
8. Has there ever been a situation where you decided not to buy a product due to a lack of information about the product and/or its source? Why?
9. Has there ever been a situation where you decided not to buy a product because the information you had about it did not seem reliable? If so, describe what made it unreliable.
10. Finally, what do you think a person should know about where their food comes from, and why?

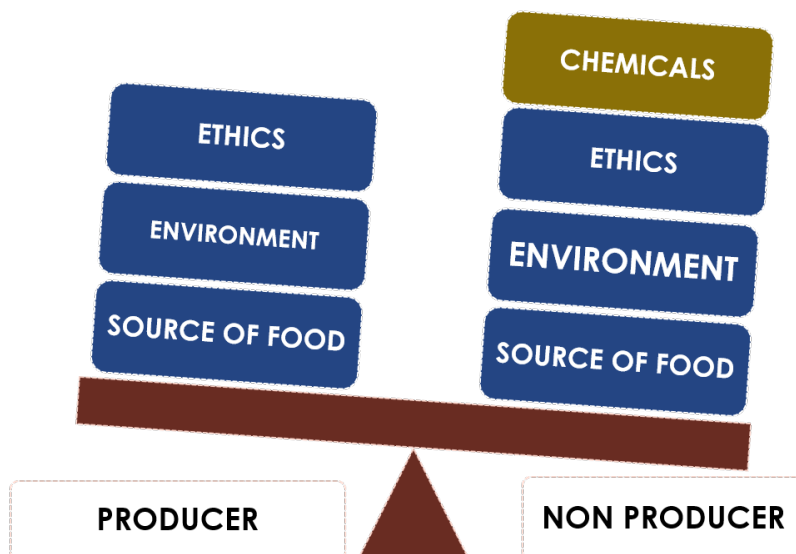


Figure 1: Concerns for choosing where to purchase produce Non -Producers



Figure 2: Words most commonly used by non-producers in interview responses.

SOURCES OF INFORMATION

PRODUCERS

NON-PRODUCERS

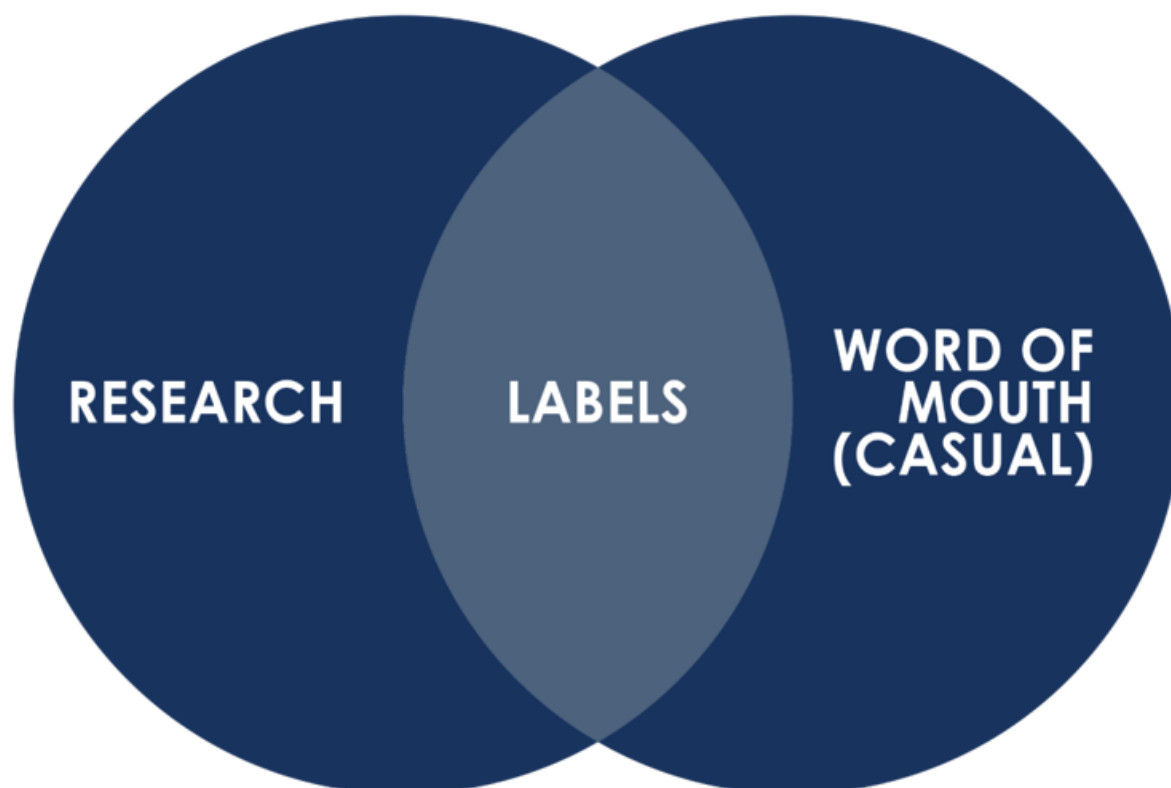


Figure 4: The main media by which producers and non-producers receive information about the produce they purchase.



Figure 5: Major themes and trends from interviews conducted.