



FOOD FOCUS 2018

Six issues that will shape the food discussion in the year to come.



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EXECUTIVE SUMMARY

Food is increasingly in the day-to-day consciousness of Canadians. Consumers are hearing more about food in the media and in the broader conversation. They are also seeking more information about their food – where and how it's produced. Researchers from the Department of Food, Agricultural, and Resource Economics at the University of Guelph, in conjunction with researchers from the university's School of Hospitality, Food, and Tourism Management have developed this overview of key issues that can be expected to shape the broader food discussion in 2018. The six key issues are:

- Increasing Choice and Micro-Markets for Food – drives the need to balance cost with choice.
- The Rise of Alternate Proteins – plant based proteins, insects, and cultured meats becoming more important in our diets – 43% of Canadians say they are trying to include more plant based proteins in their diets..
- Antibiotic Use in Meat Production – antibiotic use is decreasing but we need to strike the right balance.
- Restaurants Matter More – we spend \$80 billion a year in restaurants and this is increasing faster than what we spend in grocery stores. Restaurants also increasingly shape our thinking in the grocery store.
- Minimum Wage Increases – the food industry will be the at the fore of wages increases driving increases in prices and changes in how food is delivered.
- Food Prices – expect to rise 2-2.5% with much more significant variation within the year.

Increasing Choice and Micro-Markets for Food

As consumers are learning more about food, different attributes are becoming more important for different people. Food is less and less a commodity and more and more a specialized, individual choice. Producers and processors are responding to these evolving demands by offering more choices and niche products. There are also increasing choices for where to buy food with expansion into big box stores and also smaller footprint

neighbourhood stores. The challenge becomes balancing the costs of choice and the value that choice brings. Retailers, food service, processors, and producers need to determine which products and service to develop and offer and ask the question, "How much choice do consumers really want?" There are significant supply chain implications, both positive and negative, arising from providing more variety. It is also worth asking if consumers want more choice or if more consumers just want different things. This presents a different challenge.

The Rise of Alternate Proteins

There is increasing interest in alternate sources of protein – Neilsons reports that 43% of Canadians are trying to get more plant based proteins into their diet (as compared to 6% who identify as vegetarian and 2% as vegan. We have seen a 25% fall in red meat demand over the past decade and (in the US) a 15% increase in the demand of plant based food items. This phenomenon is driven by an increasing concern over the health impacts of eating too much meat and the environmental impacts of meat production. While the science on both issues remains contentious, it is clear that consumers are reducing meat consumption (flexitarianism) or, to a smaller degree, not eating meat at all (vegetarianism, veganism, lacto-ovo vegetarianism, and pescatarianism). This has led to an increase in demand for plant-based proteins, insect proteins, and cultured meats. We will continue to see this growth with more products and preparations becoming available in both retail and food service.

Antibiotic Use in Meat Production

Canadians have seen significant discussion about animal welfare in the past five years. The next issue that will get substantial attention is antibiotic use in meat production. Antibiotic use is much more complex than animal welfare. Reducing the use of antibiotics, particularly those used in human medicine, is important. The complete removal of antibiotics from livestock production could, however, have significant animal health and welfare implications. Going forward, great care needs to be taken to strike the right balance between human

health needs, consumer preference, and animal health needs. A complex discussion can quickly be undermined by simple taglines and opportunistic marketing.

Restaurants Matter More

Canadians are spending an increasing proportion of their food dollar outside of the home. We spend \$80 billion dollars per year in restaurants and restaurant spending is growing more quickly than grocery store spending. Canadians spend Food delivery services and meal packages are blurring the line between restaurants and grocery stores. Visits to restaurants are more frequent and they influence food choices beyond their dining rooms. Their ability to communicate directly with consumers through personal interactions, mass marketing, and social media means food service is shaping our thinking about food and the choices we make in grocery stores.

Minimum Wage Increases

Substantial minimum wage increases are coming in both Alberta and Ontario. Other provinces, most notably British Columbia, have indicated that they intend to raise theirs in the years to come. Minimum wage increases have the potential to create the most impact in the food sector. Restaurants employ more than 1.2 million people in Canada and most of these employees work at or close to minimum wage. Food retail employs more than 500,000 people in Canada, and again, most of these employees work for minimum wage. Significant increases in minimum wages will push companies to change how they function and could reduce overall employment. While many farm activities will be exempt from minimum wage requirements, higher wages in other sectors will make an already difficult labour situation worse on farms.

Food Prices

While we expect an annual increase in food prices overall of 2%-2.5%, prices are much more variable within years than they are between years. While price increases for specific products cause consternation, consumers can often offset the price increases by modifying purchases in the short run. A number of factors can cause unexpected fluctuations in prices

– most notably extreme weather events and exchange rate fluctuations. In the absence of these factors, prices will generally increase at the rate stated above although there is considerable volatility between product and within the year.

The remainder of the report provides a more detailed discussion on each trend.

THE 6 TRENDS EXPLAINED

Increasing Choice and Micro-Markets for Food

Consumers in Canada are being offered more choices in response to the fragmentation of preferences amongst consumers. Available choices will continue to grow. People will be able to find exactly what they want, however, more choices cause clutter and confusion in the market.

There are an increasing number of attributes and topics that are important to specific consumer groups: location of production, whether organically and sustainably produced, animal welfare, antibiotic use (see next section), nutrient profile (sodium, fat, and calories), gluten content, nutrient enhancements, and many more. This is driving the development of micro-markets of specialized products. This increases the choice of products consumers see.

People generally like the idea of choice. Choice increases the perception of value (you can buy exactly what you want), it gives consumers a sense of experience, and it can also be a signal of quality. More choice can, therefore, increase the quality perception of a store.

More choice might also allow stores to maintain higher prices.

There are other costs associated with choice. Choices exist largely because different people want different attributes rather than *everyone* wanting a different thing *every time*. There are search costs associated with finding the specific product that an individual is seeking. This can reduce value for the consumer. Striking the right balance is critical for both food retailers and food service.

If there is too much choice consumers can become overwhelmed. This is called the paradox of choice. An overwhelmed consumer often falls back on easy approaches to choosing –

low price or previous purchases are common. These simple heuristics – or decisions tools – lower the possibility that consumers take advantage of the choice available.

There are not only more product choices but also more choice of places to buy food. We still see large grocery stores but there are increasingly more specialty stores and markets with specific offerings. We are also seeing increased localization of food retail. Loblaws bought Shoppers Drug Mart. Sobey's is in discussions with Jean Coutu. These smaller footprint, neighbourhood-based stores provide an opportunity for a different food shopping experience. Online groceries and the "click and collect" model provide other avenues. Amazon got a lot of coverage for their purchase of Whole Foods but Canadian retailers have already been working hard to deliver this format to consumers in anticipation of growth and increased competition. Delivery of both restaurant-ready meals and meal kits is another area of growth.

More choice creates a number of new supply chain complexities:

- Certification or verification of product claims, regardless of what the attribute is, can be a challenge. We are increasingly wary of food fraud and so the market may move to standards, private verification, or some combination of the two. Decisions need to be made relative to process and product standards. Traceability will also become more important.
- Specificity on product labels requires more stable supply chain relationships. Products held to certain specifications (especially those where location and producer are identified) have to be sourced consistently. Anchoring the value chain with selected partners provides stability in supply, and often, in pricing.

The Rise of Alternate Proteins

Biologically speaking, humans are omnivores and we like to eat a variety of things. There is increasing interest in all sorts of alternative sources of protein as we diversify our diets. . According to Nielson, while the proportion of Canadians identifying as vegetarian and vegan are still relatively small (6% and 2% respectively), 43% of Canadians say they are planning to get more plant based proteins into their diet which is higher than the US and the global

average.ⁱ This is coupled with a 18% reduction in beef consumption and 11% reduction in pork consumption over the past decade.ⁱⁱ In the US, plant based food sales grew by almost 15% July 2016-June 2017.ⁱⁱⁱ

We are being offered increased variety in response to that interest. This phenomenon is driven by a wide variety of factors – health, the environment, animal welfare, and the increasing desire for variety. It is clear that consumers are reducing meat consumption (flexitarianism) or, to a smaller degree, not eating meat at all (vegetarianism, veganism, lacto-ovo vegetarianism, and pescatarianism).

While the science continues to be unclear about the health impacts of meat consumption, it is clear that there is a move to eating less meat. The new, not-yet-finalized Canada Food Guide recommends moving to a more plant-based diet. If people reduce their intake of meat, they will need to find protein elsewhere.

Another critique of meat is that livestock production is environmentally unsustainable. In addition to the resources required to produce meat, there is also concern about the emissions from ruminants. While the absolute impact depends on the livestock type – for example, beef is considered more problematic than chicken due to both emissions and the amount of grain required per kilogram of meat produced – and the specific production system, concern over environmental impact will continue to contribute to the motivation for reduced meat consumption. Furthermore, some consumers think that raising animals for human consumption is unethical and are choosing to stop eating meat altogether.

Even without concern for the other factors, there is also a trend to increased variety and choice. In particular, boomers have more time and are experimenting more with food. Restaurants are working hard to differentiate and create margin as meat prices increase. They also are seeing the early trend of reduced meat consumption and anticipate an opportunity. A demand for alternate proteins exists in retail as well.

Plant-based proteins are the primary alternative. These are most often soy protein or pulses. Pulses are the dried seeds of legumes and the most common edible ones are dried peas, dried beans, chickpeas, and lentils. These products are appealing as they are high in

protein and fibre but low in fat. While that makes for a healthier product, it does make them less desirable for some consumers.

In efforts to replicate the meat experience, several companies are developing plant-based meat analogs. They are building “burgers” that mimic the colour, texture, juiciness, and taste of a beef burger. Several of these products are on restaurant menus and grocery store shelves already.

Companies are also developing the technology to culture meat, a process in which meat protein is grown in a laboratory without a live animal. This technology exists today but is prohibitively expensive (\$100,000 per burger): developers are optimistic about production improvements. Another drawback of the current technology is that it produces a ground beef analog rather than the long muscle fibres that comprise premium cuts of beef.

Insect protein is another area with the potential for dramatic growth. The *ick!* factor has constrained development in North America, but there are parts of the world where insects represent a significant protein source. Insects have appeal because they grow quickly and efficiently. Also, food that would otherwise be wasted can be used to produce insects. The development of products such as insect “flour,” where the source is not recognizable, may make insect protein more appealing.

The long-term trend to lower per capita meat consumption will continue. There will be greater interest in plant-based protein and cultured meat. New products and approaches will highlight this discussion in the year to come and beyond.

Antibiotic Use in Meat Production

The use of antibiotics in meat production is a rapidly emerging issue in Canada’s food discourse. The conversation around meat and eggs has focused on animal welfare over much of the past five years and is now moving to other elements of production. Whereas animal welfare is complex, it pales relative to the complexity of antibiotic use. There is a real risk that we will move towards a less-than-ideal result due to poor understanding, simple messages, and a rush for competitive advantage. It will be important that we get this right.

There is broad, scientific consensus that antibiotic use in animal agriculture is increasing the risk of the development of resistant bacteria. It is less clear what, if any, role this plays in human health. Antibiotics continue to play a critical role in animal health. Historically, they have been used to improve performance by reducing the challenge of subclinical disease, disease without visible symptoms. Antibiotic use in animal agriculture is complex and plays out in the overlapping domains of economics, animal health and welfare, and the ongoing efficacy of antibiotics in human medicine in the face of increasing resistance in humans. Balancing these explicit tradeoffs will be the challenge as we move towards reducing antibiotic use in food animal production. This discussion also takes place in the context of a consumer that has a poor understanding of how food is produced, let alone the mechanism of resistance development, and an increasing skepticism about science.

There are differences between antibiotic products and how they are administered. The primary focus today is reducing the use of antibiotics that are important to human medicine. There is also some pressure to move away from administering antibiotics in feed to large groups of animals. There are, however, instances where this is the best approach to treating an outbreak in a group and individual treatment is impractical. The key objective is to reduce sub-therapeutic use in feed – instances where antibiotics are fed when animals are not sick to reduce the subclinical disease challenge and improve growth.

A key question relative to antibiotic use is, "What is the right amount of use?" There is again broad consensus that reductions need to happen. There are impending regulatory changes that will also reduce use. Some companies have committed to "raised without antibiotics (RWA)" protocols. This may not always be possible and animals that require treatment are removed from the RWA value chain but are still sold commercially. Universal RWA is likely not possible, particularly given current technology and practices. Responsible stewardship of animals may also be in jeopardy if animal health and welfare are sacrificed by delaying or withholding treatment. Reducing antibiotic use will likely raise costs for producers and with them, prices for consumers.

Finally, it is important to determine if there will be a single approach to reduction (i.e., a universal standard) or value chain-specific changes. A single approach has some merit to ensure that we achieve the reductions necessary to reduce the risk of resistance development. The reality is that disagreements over science, competitive differentiation, and evolving consumer preferences will likely mean a hybrid approach. A hybrid approach ensures that we meet minimum standards while also meeting the different needs of the fragmented market. Regardless of the approach, antibiotic use will be an important factor in the food conversation in 2018 and beyond.

Restaurants Matter More

Restaurants are playing an increasingly important role in the food culture of Canadians. Canadians spend \$80 billion annually in restaurants.^{iv} We are spending almost 30% of our food dollar in restaurants and also buy a lot of prepared food for consumption at home. The rate of growth in restaurant spending is greater than it is for stores.^v In the United States, food prepared outside the home represents more than 50% of the food dollar. This spending impacts the food market in a variety of ways.

Restaurants make choices for consumers. They choose menu items and their characteristics. Retail stores want to give consumers as much choice as possible (see Increasing Choice and Micro-Markets for Food) but this causes issues for restaurants. In a retail store there may be many choices for eggs (e.g., white, brown, different sizes, organic, high Omega-3, free run, free range, and cage free), breakfast sausages (e.g., beef, pork, turkey, enhanced animal welfare, reduced antibiotic use, low sodium, spiced, and hot), and English muffins (e.g., regular, whole wheat, multigrain, gluten-free, and low sodium). By comparison, in most restaurants you only have one or two choices for a breakfast sandwich – perhaps with and without sausage. Not only do restaurants make the choices for us, they communicate the value of those choices and can drive awareness of issues. It was quick service restaurants (QSR) like McDonald's and Tim Hortons that drove the animal welfare discussion with respect to layer hens and eggs. Restaurants can also drive significant volumes of business creating the critical mass to foster change in production practices.

Restaurants have a better opportunity to communicate their choices to consumers than retailers. In a full service restaurant the server can describe important attributes; further, a limited menu provides the opportunity to highlight those attributes. Chain restaurants, particularly QSR, advertise and differentiate on those attributes and raise them in the consciousness of Canadians. Through this communication, restaurants are not only driving internal business but impacting the choices people make in food retail.

Like food retail, restaurants are a low margin business. Increasing food, labour (see more below), and rent costs are forcing restaurants to find margin in different areas. This has driven a shift, first to lesser cuts of meat (the largest part of food cost) and smaller portions and now often to alternate sources of protein to meet margin requirements. This helps to drive changing perceptions of plant-based proteins.

The lines between food retail and restaurants are increasingly being blurred which extends the influence of the "restaurant experience."

- Retailers and online services are increasingly offering meal kits that come completely portioned and ready to prepare. These allow consumers to have the comfort and convenience of eating at home while also enjoying a more sophisticated meal experience. These kits usually come with premium attributes (e.g., enhanced welfare and sustainable production) that also increase awareness. Some food retailers are even opening restaurants (often termed "grocerants") to offer another option.
- Restaurant food delivery is becoming more common. Uber Eats, Skip the Dishes, and other services offer delivery from a much broader range of choices than the traditional pizza and Chinese food. This has not been without its hiccups. Some food does not travel well and using a third party provider eliminates the restaurant's control over quality and, therefore, the complete consumer experience.
- Retail food delivery or order pickup is also becoming more common. We heard a lot about Amazon's entry into the market and the acquisition of Whole Foods but there are well-established players around and new ones entering the market too. Grocery delivery is difficult, particularly in the early days as routing and timing are

complicated. This has led more companies to follow the "click and collect" model where consumers order online and pickup at the store themselves. This also allows consumers to buy some of the fresh produce separately.

Minimum Wage Increases

There has already been considerable discussion about increases in minimum wage. Several jurisdictions in the United States have increased minimum wages with \$15 per hour being a common target. Substantial minimum wage increases are coming in both Alberta and Ontario. Other provinces, most notably British Columbia, have indicated that they intend to raise theirs in the years to come. Minimum wage increases have the potential to create the most impact in the food sector.

In Canada, restaurants employ more than 1.2 million people, most of them working at or close to minimum wage. Restaurants are low margin businesses with labour representing 35% of total revenues. With minimum wage increases, we will see impacts immediately that could take several forms. Prices will go up. There are likely some things that restaurants can do to trim costs but likely many of these have already been done as there have been food cost pressures already over the past few years. (In some urban markets, escalating rents have also pressured restaurants.) Menus and portion sizes may change. Increasing minimum wage costs may be another factor that contributes to an increasing focus on plant-based proteins. Opening hours may change reducing jobs. There will be an increasing focus on automation, particularly in quick service. Restaurants may rethink tipping in order to gain control of that significant revenue that is currently outside of management's hands. And finally, some restaurants will close as higher wages push them from marginally profitable to unprofitable.

Food retail employs more than 500,000 people across Canada, and again, most of them work for minimum wage. The impacts in food retail will be similar to those in restaurants. We expect prices to go up. Store hours may change. There may be store closings, particularly in smaller independent stores whose food costs are higher than the chains. While opportunities for automation may be limited in the short term, many grocery

companies are looking at technological solutions to reduce labour requirements. Higher minimum wages may accelerate that process.

While many farm activities will be exempt from minimum wage requirements, higher wages in other sectors will make an already difficult labour situation worse. Hiring farm labour is currently very difficult. The jobs are often physically demanding and many Canadians aren't interested in the work. This is compounded by there being less labour available than before in many rural areas. We have programs that bring in seasonal farm workers from the Caribbean and other areas. Increasing minimum wage will make it that much more difficult to attract Canadians to agricultural labour.

Significant increases in minimum wages will push companies to change how they function and could reduce overall employment. Research suggests that higher minimum wages will not affect total employment but these wage increases are bigger than any previous ones so it is difficult to say if that will be true in this context. These increases in minimum wages are likely to drive some significant changes in the food industry.

Food Prices

Food prices are frequently in the news and cause consternation as they increase. The truth, however, is that while there is variability from year to year, food price increases have been relatively consistent over the years. Figure 1 shows the annual Canadian Consumer Price Index for food from November 2002 to November 2016. It is clear that the growth rate is relatively consistent. It averages about 2.5% per year. Since 2010 the largest annual increase was 3.7% (in 2011 and 2015), largely driven by severe weather events (droughts) and a falling Canadian dollar – both of which are extremely difficult to predict.

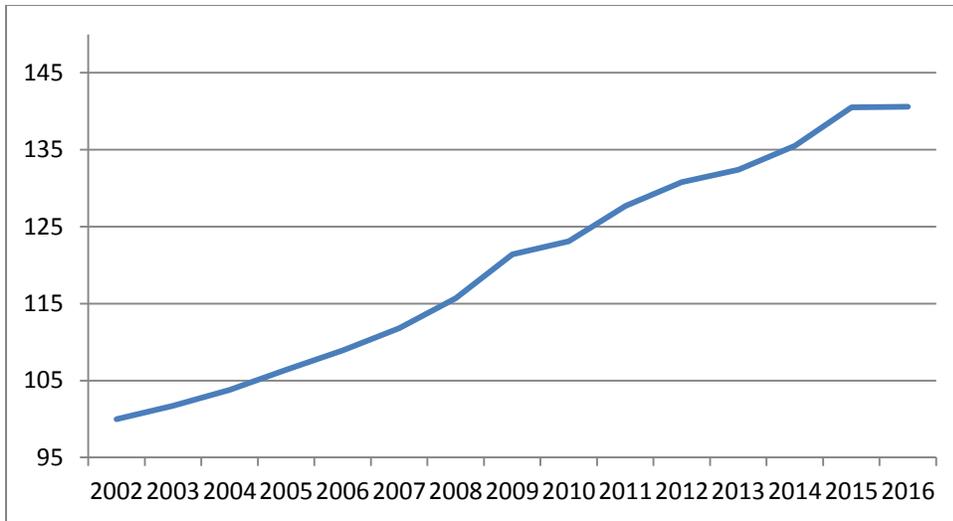


Figure 1. The annual Canadian Consumer Price Index for food, November 2002 – November 2016

Why do food prices cause such a fuss? There are a number of reasons.

There is considerable variability within years that makes it seem like prices are increasing more quickly than they are. Figure 2 shows the food price changes from month to month from November 2014 to November 2016.

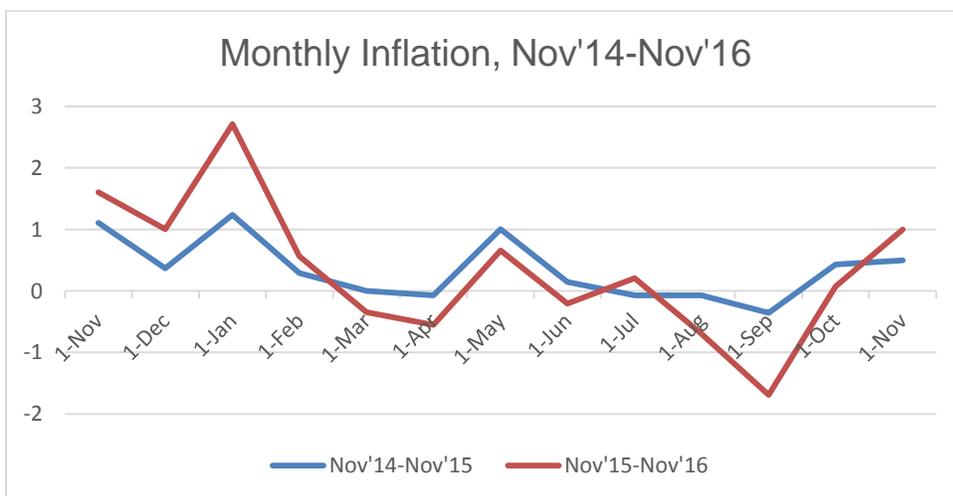


Figure 2. Food price changes from month to month, November 2014 – November 2016

Food prices rise in the New Year as we import more fresh produce and decrease later in the year when the Canadian harvest happens. We tend to be more sensitive to price increases than we are to decreases so the significant increase early in the New Year feels severe and the lower ones later in the year go unnoticed. In Figure 2 we see that January and February 2015 food price changes were higher than in 2016: the Canadian dollar was lower which caused imports to be more expensive.

Seasonal impacts can be exacerbated for individual products or product groups. While there are often 1%-2% monthly increases in aggregate food prices in January and February, this is driven by the increase in imported fresh fruits and vegetables which increase to a higher degree. These are short-term price increases. When Canadian products become available monthly inflation is smaller or negative. Overall, however, this regular, cyclical variation can feel like significant increases more than anything else. More and more fresh produce are being grown in greenhouses in the winter which helps mitigate some of the higher spikes and cyclical variation.

There can also be short-term market impacts that drive price changes. For example, in the winter of 2017 there were short-term weather issues in parts of Southern California that caused shortages of celery and cauliflower. This created significant price hikes for these products that lasted a few weeks but garnered considerable attention before most of them return to normal. We expect similar price increases (but not likely as short term) for oranges and orange juice given Hurricane Irma damage in Florida. There can also be local shortages within Canada that cause competitive price responses in the short term.

This within-year variability is easier for consumers to buffer than year over year increases. Eating seasonally, preserving, and buying frozen Canadian products can, for example, reduce the impact of imported produce on the winter food budget.

We often hear about extreme price swings in agricultural commodities such as corn, wheat, or soybeans. Consumers are, to a degree, protected from these extreme swings as the prices of these basic commodities often make up a very small portion of the retail cost of a

product. Less than 10% of the value of a loaf of bread is the cost of the wheat. A 20% increase in the cost of wheat leads to only a 2% increase in the price of bread.

There is significant competition in the Canadian food retail and food service sectors that also buffers both price increases and decreases. This is especially true for staple products.

The price of food matters. Canadians are unusual in that we spend a lower proportion of our annual income on food compared to most other populations. Food prices, however, are increasing steadily and this does put pressure on low-income families.

ⁱ <http://www.nielsen.com/us/en/insights/news/2017/plant-based-proteins-are-gaining-dollar-share-among-north-americans.html>

ⁱⁱ <http://www.agr.gc.ca/eng/industry-markets-and-trade/market-information-by-sector/poultry-and-eggs/poultry-and-egg-market-information/industry-indicators/per-capita-disappearance/?id=1384971854413>

ⁱⁱⁱ <http://www.gfi.org/new-data-sales-climbing-for-plant-based-foods>

^{iv} <https://www.restaurantscanada.org/research/>

^v <https://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/famil132a-eng.htm>