

TREND REPORT

FOR NOVA SCOTIA

PRODUCERS AND

PROCESSORS



The Agri-Food Accelerator Program for agriculture producers and food and beverage businesses in Nova Scotia was introduced by Perennia Food and Agriculture.

The focus of this program is to:

- support access to new markets through skills development and information, as well as food safety support, analytical testing and training to meet scientific, retailer and market expectations for safe food
- support the successful commercialization of Nova Scotia agriculture-sourced products into recognized retail markets through skills development and information, as well as market research validation and prototype product development and scale up support with the intent to have the product successfully reach the intended market with sales longevity

The trend reports in this booklet were prepared in 2019 for Perennia by SKUFood under the Agri-Food Accelerator Program

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Consumer trends in the food and beverage industry

Food and beverage is one of the most exciting sectors to operate in since consumers shop for these products every week, sometimes several times per week. They vote at the cash register every time they visit a store or shop online. This presents opportunities in that producers and processors can learn constantly about the demand for their products. It also presents challenges as consumers are changing fast and they will quickly shift from one product to another with no concern for the lead times or effort required to produce any of the products.

Understanding consumer trends requires an answer to the 5 W's;

1) WHO ARE THEY?

2) WHAT ARE THEY BUYING?

3) WHY ARE THEY BUYING?

4) WHERE ARE THEY BUYING?

5) WHEN ARE THEY BUYING?



WHO ARE THEY?

Immigration growth and the rising influence of Millennial/ Gen Z consumers are two major drivers of change in food and beverage. The ethnic consumer is creating a significant shift in demand. In markets like Ontario and British Columbia visible minorities represent more than 50% of the population. Items that were niche like Asian vegetables are now mainstream in some markets and replacing demand and shelf space of more traditional items. Food service will often lead the way as they adapt menus to changing tastes and demands. Tastes are changing when Tim Horton's launches a "Spicy Thai Soup" to complement its chicken noodle and cream of broccoli.

The preferences of Millennial and Gen Z consumers, who are more likely to eat out, are driving change. Increasing demand for healthier, organic, sustainable, "local", ethnic and alternative protein sources all can be traced to the demands of these influential consumers who will dominate demand in the future.

WHAT ARE THEY BUYING?

No single trend probably gained more momentum during 2019 than **alternative protein** demand. It has been driven by a confluence of factors – animal welfare concerns, climate change awareness, health and wellness and even global culinary tourism have combined to provide impetus to this movement. *Beyond Meat* meteoric stock price rise from its IPO debut demonstrated that this trend also was not lost on investors. Supply will soon catch up with demand as global food companies like Maple Leaf, Kellogg and Tyson get traction in the category. A 2018 Technomic survey found that 42% of North American consumers claim they are eating more vegan and vegetarian options than two years previously; in contrast, only 15% and 16% of consumers report eating more beef and pork respectively over the same period. These trends will impact our domestic agriculture industry.

The “**buy local**” trend continues unabated but the definition of what constitutes local continues to evolve. The Dairy Farmers of Canada are content to define “local” as anything produced in Canada. In food service, McDonalds and A&W advertise

all their beef and cheese comes from Canadian sources. Farmers’ markets continue to be popular with consumers looking to have a stronger connection to the source of their food. These markets are also opportunities for producers and processors to learn directly from consumers and implement the feedback into their product offerings.

Retailers’ **distribution networks** also influence the definition of local. The large retailers in Atlantic Canada treat the region as one and cannot differentiate provinces in their network without added costs. This varies by sector, as beverage alcohol and cannabis are unique within each province. There is shelf space dedicated to ‘local’ beverage alcohol and cannabis producers but this will not ensure these industries are sustainable. The population in the province or even the region makes it very difficult to compete with similar products operating in markets many times larger.

Consumers are supporting the increase in **micro brand** sales, which results in a decline of mass big brands. Developments in the craft beer market in Nova Scotia over the last five years mirror what has been generally happening in the larger consumer packaged goods (CPG) industry. Larger CPG

brands (e.g. Kraft Heinz) have been losing market share to smaller, innovative brands that are proving more adept at meeting a growing array of unique sets of consumer preferences for gluten free, zero fat, low calorie, vegan, nut free, non-GMO and other product attributes.

The opportunity for micro brands poses large implications for producers and processors. This shift in consumer demand opens the door for innovative new product options from potentially smaller and new players. Micro brands can fragment the market, lead to smaller production runs, higher unit costs and lower sales per SKU, which increases the marketing challenge of achieving sustainable, longer term sales. Achieving a new retail or food service listing may in fact be the easy part of the sales cycle in this brave new world of micro brands – getting them to move off the shelf and achieve repeat sales is the much bigger challenge.

WHY ARE THEY BUYING?

Food safety has become a huge issue with consumers. Incidents of e-coli, listeria and other food borne illnesses are becoming more frequent and present in mainstream media. Awareness of recalls and food issues is higher than ever. Consumers want to know that their food is safe and they will change their buying patterns accordingly.

Canadian consumers are concerned about the **environment and sustainability**. They are demanding reductions in food waste and introduction of “greener” packaging. Where 50% of the food waste is estimated to be with consumers, it will be interesting to see if they accept responsibility for changing their habits. New packaging options are often more expensive and complex for producers and processors, which will have to be absorbed by consumers. Education will be key in driving change.

According to results from the Agri Food Analytics Lab at Dalhousie University, “89.8% of respondents believe plastic packaging should be changed to green alternatives but not at additional cost.”

Consumers are hungry for sensible weight loss solutions, **healthy alternatives** and the benefits that lifestyle appears to advertise and promise. Keto, Whole 30, gut health, intermittent fasting are all very popular options right now. They are changing their buying patterns to support products that conform to the program they are following. Consumers want immediate results.

In the fall of 2018 we experienced the launch of legalized **cannabis** and in 2019 edibles became legal for consumers over the age of 19. When edibles are available, the legal cannabis industry will be +/- \$10B in Canada. To put this in perspective, it will be equal to the fresh fruits and vegetables purchased in Canadian food retail. A significant percentage of cannabis shoppers are new to this purchase. They come into a retail outlet with very little product, format or brand knowledge.

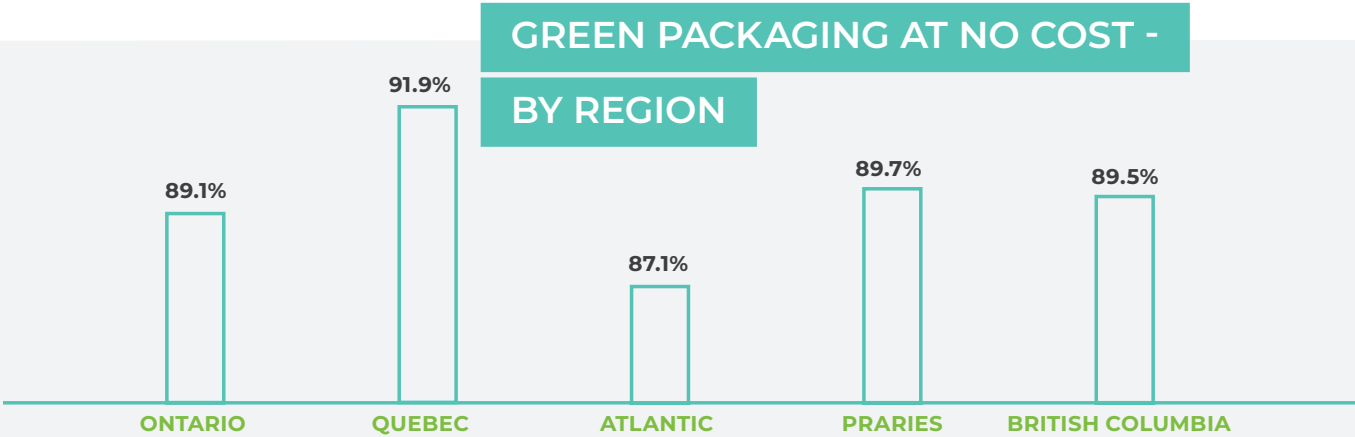
Social media is becoming the source of information up and down the value chain. Consumers are being targeted through their personal social media channels, with information that they willingly share with Facebook and other online platforms.

Consumers also depend on Facebook, Instagram and other

platforms for information and reviews. They want to be part of the community buying products to share information and stories. The willingness to consume information about products on social media is an opportunity for food producers and processors. There was a time when it was very expensive and challenging to market direct to consumers, now everyone can do it.

Canadians love their rewards credit cards and **loyalty programs**. A new study by Bond Brand Loyalty shows the average Canadian participates in 12.2 loyalty programs, up a whopping 25 per cent in just four years. However, many consumers are not spending their points. Right now, there are \$16 billion worth of points left unredeemed by members in Canada. Retailers are investing in these programs to build consumer profiles and influence their buying habits. Consumers are willing to trade their personal contact information and purchasing behavior for special offers and points to be redeemed. Most retailers are looking for producers and processors to invest in these programs and the focus can be very narrow relative to more traditional mass media.

“The buy “local” trend continues unabated but the definition of what constitutes local continues to evolve.”



WHERE DO THEY BUY?

Canadians spend only about 30% of their food dollars at restaurants vs. 70% in the home. This is markedly different than the US where the ratio of at-home to away-from-home is 50/50, according to the USDA.

Canadians eat more in home but what we eat at home is changing. In **home consumption** of more prepared food (e.g. restaurant delivered meals and meal kits) is one of the fastest growing food consumption segments. All food delivery – be it from a restaurant via Uber Eats or Skip the Dishes or meal kits from companies like

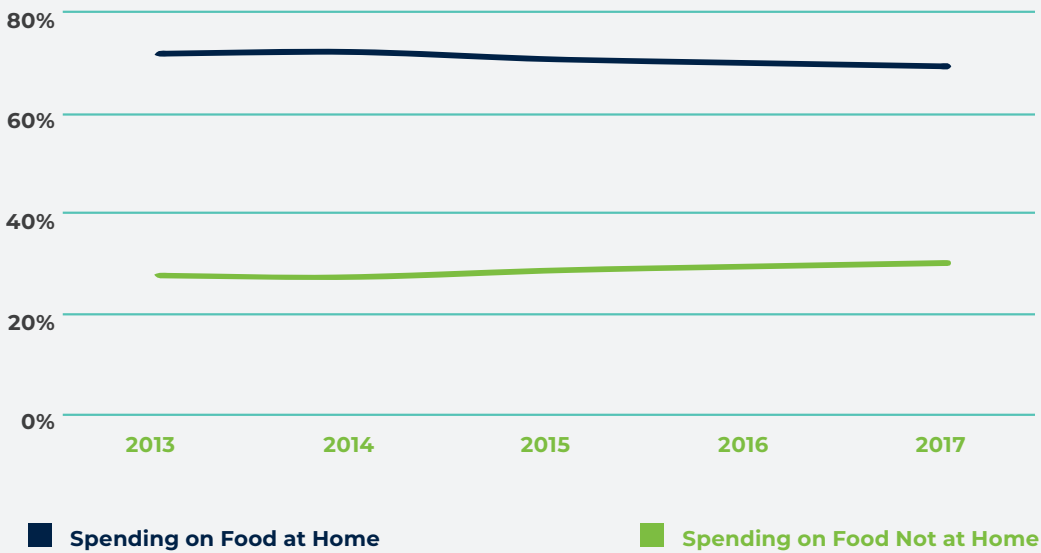
Hello Fresh – struggles with how to manage high delivery costs relative to consumer’s willingness to pay. Very few of these companies have demonstrated their ability to deliver consistent profit. The landscape of customers is changing and because consumers are eating at home does not always mean they purchased the food at a traditional grocery store.

Online grocery shopping is growing with consumers. Consumers have adopted online shopping for many categories ahead of food but it is happening now.

Trust and convenience will drive the growth as long as they

perceive the value to be fair for the products and service they get. It costs supermarkets an average of \$10 per order to deliver food, but grocers only recoup around \$8 because charging more risks turning off shoppers. Low margins, the cost of picking orders and the complexity of food delivery all impact retailer’s preferred method of execution. The most common online selling model for grocery retailers is the “Click and Collect” model, where the consumer picks up the online order at the store and incurs the cost of the “last mile”.

PORTION OF FOOD SPENDING AT HOME VS NOT AT HOME IN CANADA



WHEN ARE THEY BUYING?

Consumers and customers (retailers, wholesalers and distributors) want everything now. They are not willing to wait or listen to excuses. They expect a wide array of products where and when they need them at a competitive price. If producers here are not able to supply them they will move to the next available option.

CONCLUSION

Consumers drive change in the food and beverage industry. They have the ability to determine what they buy every week, which will impact everyone in the value chain. Food consumers are changing faster than ever and they are exposed to more information in the palm of their hand telling them what to eat, how to eat it, when to eat it and where to buy it.

¹<https://cdn.dal.ca/content/dam/dalhousie/pdf/management/News/News%20%26%20Events/Single-Use-Plastics-June-6-2019-EN.pdf>
²<https://www150.statcan.gc.ca/t1/tb1/en/tv.action?pid=1110012501>



Trends impacting food and beverage processing

Processors in the food and beverage industry need to create and deliver products that meet or exceed the expectations of customers who buy their products and consumers who are end-users. Both customers and consumers are more demanding than ever. They both expect these products to deliver on many fronts including but not limited to quality, value, food safety, health and wellness, tastes of the world, sustainability, local, and service level. This is a challenging task in an environment where the pace of change is increasing.

Successful processing industries are critical in the success of the overall food and beverage value chain. Processors require ingredients and they drive innovation in different categories. They also must compete with some of the biggest consumer packaged goods companies in the world. There are no easy categories any more.

CONSUMERS DRIVING CHANGE

CUSTOMERS DRIVING CHANGE

INNOVATION

REGULATORY CHANGE

CONSUMERS DRIVING CHANGE

Consumer demands for non GMO, no added or artificial flavors, nut, gluten or soy free or vegan all increase the challenges of the processing sector. The proliferation of other **dietary restrictions** or foods permissible in certain cultures or religions all impact food processing facilities. Consumers are more knowledgeable and demanding about the food they purchase. The market for products that cannot make claims is shrinking and is being reduced to commodity status.

Canadians do want to know where their food comes from. Processing in Canada has benefited from negative reactions to US tactics during **free trade negotiations**. The dairy industry is an example of consumers actively supporting domestic production. The desire for more local food is evident in many categories with **craft style products** garnering more shelf space. Some retailers are dedicating resources to sourcing products locally throughout the entire store or menu. Local is more than a produce initiative in some retailers and restaurants.

Consumer's consumption will always have a direct impact on food processing. As consumer demands change more rapidly than ever, processors must react faster.

Processors will have to respond to what consumers eat and how they want to eat it. **Delivery from food service** is expanding at exponential rates with third party solutions such as Skip the Dishes and Uber Eats. Processors are developing new products such as French fries that taste "right out of the fryer" after being in a controlled atmosphere bag for 20 minutes that allows for delivery. Cavendish Farms have trademarked their specialty fries "Delivercrisp". We will see more products developed for this rapidly expanding market. According to NPD Group delivery represents 5.7% of the Canadian restaurant market. Although this is still a small percentage, digital delivery sales grew by 57% in the last year, which is 10 times the total industry growth.

“According to NPD Group delivery represents 5.7% of the Canadian restaurant market.”

CUSTOMERS DRIVING CHANGE

Certifications and accreditations are becoming the “new normal” for all food processing facilities. Hazard Analysis Critical Control Point (HAACP), British Retail Consortium (BRC), Safe Quality Food (SQF), Certified Sustainable are just some examples of this growing list. Traceability, transparency and accountability in food production are also now the norm as opposed to points of differentiation. Retail and food service buyers and merchandisers are increasingly demanding **third party food safety audit certifications** from processors. Global Food Safety initiative (GFSI) programs like BRC and SQF add another layer of food safety and quality assurance to products they sell. The enforcement of these programs is also in place to decrease liability risk. These certifications are a new and necessary cost of doing business for producers and processors who want to ship and sell across interprovincial borders to larger retail and food services operators. While raising the cost structure, these costs are typically not recoverable in the form of higher prices.

Food safety and certifications are realities in both directions in the value chain. Processors need to provide this for customers and they also are expecting it from their suppliers. Resources are required to ensure that the ingredients coming into the processor meet the requirements as much as the finished goods going out.

The next frontier for traceability is likely to be **blockchain**. Walmart already expects suppliers in leafy greens to conform to their expectations to deliver on this digitization of the value chain. With data uploaded to the blockchain at every point of the supply chain, Walmart claims they can reduce the time it takes to trace food origins to seconds from a previous reality of seven days.

The selling of **private or “own label” brands** is one of the biggest weapons that both retailers and food service distributors like Sysco and Gordon Food Service (GFS) use to protect market share. The US lags behind Canada in private label penetration at retail, which is an opportunity for export-oriented producers and processors. Private label focus can be an attractive opportunity for sales growth because it avoids many of the costs of launching and promoting a brand, albeit at lower profit margins.

Success producing private label requires some specialized focus and attention. Many Nova Scotia and Atlantic Canadian companies have prospered in this world. The continued market share increases of private label suggest more producers might benefit from such a focus. Nova Scotia seafood companies like Clearwater and the former St. Mary’s River Smokehouses can be found in many retailers under different private label brands. There are opportunities to expand sales significantly by embracing private label opportunities with national retailers in the US and Canada.

Food service distributors like Sysco and GFS also employ a private label strategy to differentiate and control product standards. Processors have to invest in GFSI programs like SQF or BRC to meet private label production requirements. There are other costs, however the path to the shelf is sometimes faster and worth the extra investments.

Awareness and compiling the facts have changed **food waste** from an expense line on a profit and loss statement to front-page news. Estimates are that 20% of the food waste in Canada occurs in processing. All major food retailers (except Costco) have made the commitment to reduce food waste by 50% by 2025. In a \$100,000,000,000 industry, this will be a significant change to the food value chain. Retailers will demand reductions from processors to enable them to meet the commitments they have made.

The **channels to sell food and beverage** are evolving with more opportunities. Meal Kits are an opportunity for processors, however they must have the ability to provide small portion sizes as opposed to the ‘club packs’ retailers wanted in the past. Processors do have more choice including the direct sales to consumers through vehicles such as Amazon. Resources required to sell direct to consumers are very different than those necessary to sell into traditional retailers.

INNOVATION

The concept of **sustainability** in food processing has become a multi-dimensional challenge. It now encompasses not just environmentally friendly production, but extends to recyclable packaging, living wages, food waste, local sourcing, and community engagement. Innovation in processing will lead to improvements in each of these areas.

Processors are working to define and present a sustainable face to customers and consumers in order to thrive and prosper. We see evidence of this in food service and retail. A&W’s successful advertising of its renewed “sustainable” face to the consumer is reflected in its impressive 10% same-store sales growth in the first quarter of 2019.

Packaging is one very visible opportunity for innovation. There is more conversation than ever about single use plastics, compostable packaging and many other solutions. Innovation will drive the solutions as consumers and customers do not believe they should pay more. They expect processors to find sustainable solutions for very similar prices. Education will be required with the innovation to explain why products are appearing in new or different formats. In some cases we will need to tell customers and consumers how to treat the products differently.

Technology and automation are more prevalent in our processing industry and even more advanced in other markets. There is a demand for **less processed products** that taste better and are more convenient to consume.

This will often include the adoption of cleaner labels with ingredients such as lemon juice as opposed to citric acid or celery salt in place of benzoate.

The legalization of **cannabis edibles** in 2019 has created a new industry impacting food and beverage processing in Canada. We see huge investments in product development and a drain on expertise to the new frontier of cannabis.

Significant dollars and resources have shifted to cannabis from food and beverage. The lines will blur and as regulations evolve we will see more interaction between the sectors. For example companies like Crosby’s in New Brunswick with food processing expertise are developing cannabis-based products within their EYG Consumables division. Large cannabis companies like Canopy Growth are operating in facilities like the former Hershey’s chocolate plant in Smiths Falls, Ontario to produce edibles.

Food quality and food safety are not negotiable or nice to have any more. Processors must employ innovation and automation to ensure they deliver on these important attributes every production run. Product recalls are more frequent as the detection and control mechanisms become more sophisticated. Managing lot size and traceability are both opportunities to manage risk and reduce the potentially devastating impact of a product recall.

“PACKAGING IS ONE VERY VISIBLE OPPORTUNITY
FOR INNOVATION.”

REGULATORY CHANGE

The Safe Food for Canadians regulations impact processors across the country. This is a different approach to delivering safe, quality food in Canada. Change usually results in questions and takes time to become the new normal. Processors are adapting and determining how they will deliver within a new environment.

The new **Safe Food for Canadians Act** does put more emphasis on food coming into the country meeting the same standards as food produced within the country. CFIA will be depending on more input from industry to bring issues forward.

The **small population** in the region impacts producers and processors in Atlantic Canada. A processor in Ontario can access a market of over 13,000,000 consumers by staying within the province and meeting specific regulations.

Processors in Nova Scotia access less than 1,000,000 consumers with the same standards and regulations. Increased interprovincial trade regulations and incremental freight costs are incurred by Nova Scotia processors who sell into any other province. Strong programs such as Foodland Ontario and Aliments Quebec promote producers and processors in these regions and effectively keep others out.

CONCLUSION

Food processors will be balancing growth and new initiatives in many parts of their business as they compete in a global marketplace. Consumers, customers and regulatory bodies are changing and expectations continue to evolve. Innovation through technology and other means will be part of the solution, as this segment of the value chain must balance investments required to stay relevant with the need to generate a bottom line.

“Innovation through technology and other means will be part of the solution”



Trends impacting food and beverage production

Primary producers in the food and beverage industry must satisfy two masters: customers who buy their products and consumers who are end-users. Customers and consumers continue to be more demanding and they are changing faster than ever. They both expect a wide range of products, where and when they want them.

Successful and sustainable industries must meet or exceed these expectations. Nova Scotia provides some incredible opportunities for primary production, which deliver products that are competitive at home or anywhere in the world. Growing our primary production requires a proactive response to a changing production environment and the other factors impacting the marketplace for our agriculture products.

The biggest trends changing the way foods are produced are:

CONTROLLED ENVIRONMENT PRODUCTION

LABOUR SHORTAGES

FOOD SAFETY

TECHNOLOGY

SUSTAINABILITY



CONTROLLED ENVIRONMENT PRODUCTION

Without a doubt, there is an industry shift to reduce the variability caused by our **changing environment**. Recent weather patterns have included late spring frosts and early fall frosts. A late spring impacts planting and seed germination while an early fall frost, at peak harvest time, reduces growers' yields. Producers have also been faced with excessive rain, wind, drought, extreme heat waves, and high humidity - all factors that impact how we produce food. Controlled production environments reduce the impact of weather events and improve the continuity of supply. They can also extend seasons earlier and later.

Controlled environment production does have a number of benefits which lead to more consistent supply of quality products over a longer season. These environments do reduce the impact of variability in weather patterns and some pests that are tough to manage in an open environment. Costs can be reduced through managing irrigation, fewer miles to travel with less wear and tear on equipment, controlled application of crop inputs and the opportunity to use less expensive land. All of this can lead to greater sales over an extended season.

Producers must compare these benefits to the increased capital costs and the resources required to learn new technologies and production methods. This can take time and energy where the payback is not immediate.

Controlled production environments include several options, such as greenhouses, vertical farming, and urban container farms. Several companies within Nova Scotia are currently testing controlled environment production for crops traditionally grown in the open field such as berries. Berries are one of the most susceptible to weather changes and pest issues; controlled production environments could offer better yields and a faster return on investment. Ultimately, the environment must deliver quality products at a price that is comparable to imported products that can benefit from lower labour costs and better economies of scale. Controlled environment does also allow producers to deliver new to Nova Scotia items that have traditionally been produced in other growing or harvesting regions. Better continuity of supply, better quality, new items and extended seasons are all appealing to producers.

LABOUR SHORTAGES

Labour shortages are one of the biggest challenges across the entire food industry. The urbanization of our population has shifted the labour market out of rural areas, where we find most primary production. Rural-based positions with seasonal variability do not attract employees who seek job stability. In 2017, a labour gap of 16,500 vacancies was reported with a calculated value of \$2.9B in lost revenue to the industry in Canada. The vacancy rate in the agriculture sector in Canada is currently at 5.4%, which is among the highest of any sector nation-wide.

Since the legalization of cannabis in 2018, there has been a greater transition of skilled labour moving to the **cannabis** industry. This creates new labour shortages in other sectors of agriculture. Leamington, Ontario often referred to as the Tomato Capital of Canada, may earn a new name in the coming years as the Cannabis Capital of Canada. Leamington has the highest density of greenhouse production in the country, and many greenhouses are converting to cannabis or losing skilled workers to cannabis companies.

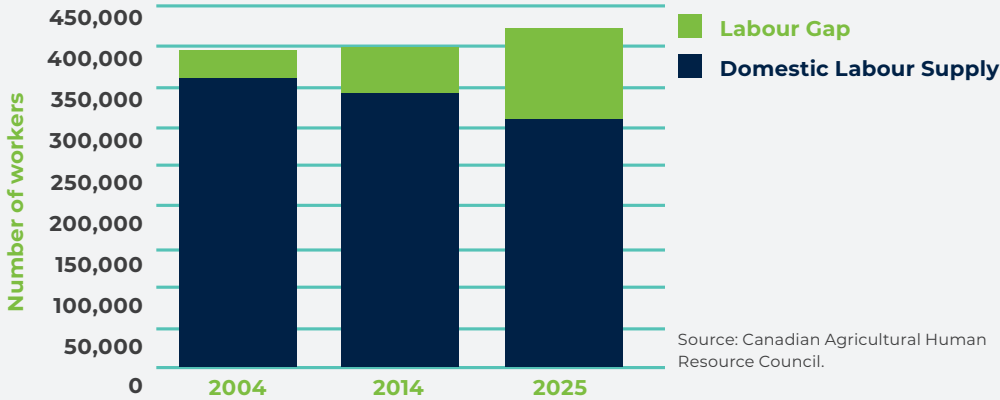
Horticultural production companies are also experiencing fewer Canadian workers who are willing to work harvesting fruit or labouring in a processing facility; this means that more offshore workers are having to be brought in for seasonal work. Offshore labour now accounts for nearly 17% of employees in agriculture, with the majority working within the horticulture sector of food production. Although this offers a solution to the issue of domestic labour shortages, offshore worker programs are not without their challenges. Companies who invest in offshore labour are required to absorb the additional expense and logistics of bringing employees to their production facility. The reliance on offshore labour presents a new risk with these employees becoming increasingly demanding, as they understand industry's dependence on their skills.

According to a study done by the Canadian Agricultural Human Resource Council, the national labour gap within the agriculture industry is expected to increase to nearly 113,800 unfilled vacancies by 2025 and 123,000 unfilled

vacancies by 2029 - nearly doubling from previous years. Complications hiring workers in food and beverage production accelerate the need to automate and innovate in order to stay competitive within the industry.

The labour issue goes beyond finding able-bodied workers. A number of producers have built successful businesses, but lack a viable succession plan. Primary agriculture has an older-than-average workforce, and demographic changes within Nova Scotia have resulted in fewer young people graduating into the workforce. This is in part due to many young people not choosing primary agriculture or food production as a career path; they see it as uninteresting and they are averse to the risks associated with primary production.

THE SECTOR'S LABOUR GAP IS EXPECTED TO DOUBLE OVER THE FORECAST PERIOD



FOOD SAFETY

Food safety is a high priority in the food and beverage value chain. In the past, emphasis has focused on the processing industry. Now the issue of food safety has become a high priority throughout all levels of the food and beverage value chain.

Regulations and food safety practices have increased for food and beverage producers. The Safe Food for Canadians Act and customer (retailers, wholesalers and distributors) demands impact primary production. The federal regulations are in place for all, with CFIA operating under a new set of guidelines. Retailers, wholesalers, and distributors are offloading risk to primary producers with more demands

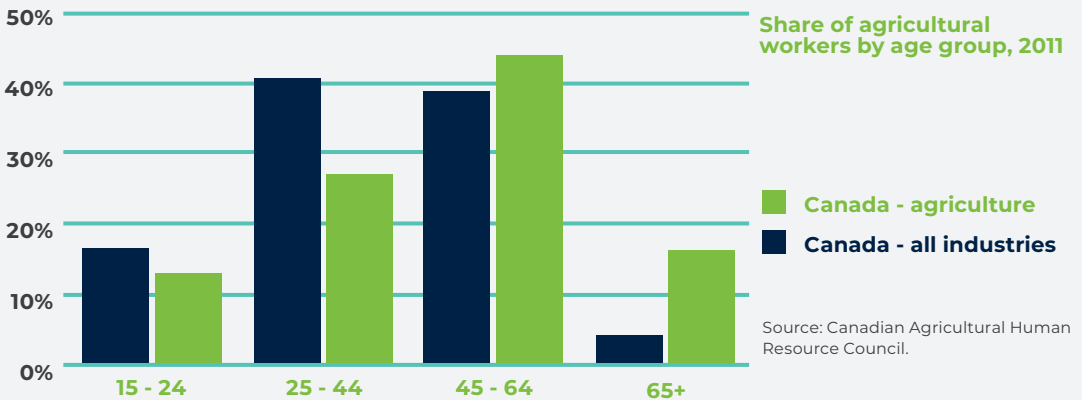
for third party audits. These audits are all-encompassing, from food safety to ethical treatment of employees. Third party audits add costs and complexities. Producers who do not meet these food safety and audit requirements will find it very difficult to sell their products into the value chain.

Product recalls are in the news regularly and they can have a devastating impact on producers. Proper protocols must be in place and customers demand primary producers to be proactive. If there is an issue, the costs for restitution will be high. Customers offload all of the costs, which includes much more than product cost. Primary producers must balance the cost of lot code size with added

costs to ensure risk is manageable.

Food safety and **food security** are a concern for customers and consumers. Canadians want to know where their food comes from. Primary producers can benefit from "buy local" however the definition of "local" is changing. Some retailers consider Canada as a local market; where as other retailers see "local" as product grown within a narrower geographic region or province. Consumer's perception of food influences the purchases of retailers, wholesalers and distributors. Food safety and food security can influence as much as quality and price. Consumers and customers must trust the producer.

OLDER-THAN-AVERAGE WORKFORCE WILL RESULT IN A LARGE NUMBER OF RETIREMENTS



TECHNOLOGY

There are more technology options available than ever. It is a challenge to stay up to date and know when to make the commitment and deliver the return on the investment. There is no doubt technology can be used to reduce labour costs, increase information on what is happening in the field and improve accuracy of packing facilities.

Labour saving solutions are abundant. Producers have to ensure the option they select is consistent with the volume they are working on. Often the innovation starts where the suppliers will find

the biggest opportunities on large acreages or volumes. Improvements in communication and dependability of monitoring equipment afford producers the ability to understand conditions and progress in remote areas. Data analysis to infrared scanning can increase marketable yield from the field right through the packing line.

Technology is playing a bigger role in primary production. There are many examples of improved execution, yield and pack out. The challenge for producers in Nova Scotia is to find solutions where there is a return on the investment required given the volume

they produce and to find skilled labour able to operate more complex equipment and processes.

SUSTAINABILITY

Food waste has always been a significant cost to producers, but it's only recently that it has become a focal point in mainstream trends affecting consumers. Awareness of waste within the entire value chain is stimulating system-wide change. When Canadians read about annual food waste estimates reaching as high as \$30B, they demanded change. All major retailers (except Costco), have made the commitment

to reduce food waste by 50% by 2025. Primary production is estimated to be responsible for 10% of the total food waste. Retailers will be expecting primary producers to implement strategies to match the promises they have made.

According to the Food and Agriculture Organization of the United Nations (FAO), one third of food produced globally goes to waste. As illustrated in the previous graph, the food loss per capita in Europe and North America is 280-300 kg/year compared to sub-Saharan Africa and South/Southeast Asia 120-170kg/year. Food waste on the consumption side for Europe and North America is 95-115 kg/year, compared to South/Southeast Asia and sub-Saharan Africa at 6-11 kg/year.

Identifying the gaps in the value chain where food waste can be reduced and finding solutions to create value-added opportunities, is critical for reducing food waste. We know there is a gap between food produced and food consumed in this country. Finding ways to reduce the gap is the next step. This starts with the producers at the beginning of the value chain. In this market, considerable food waste incurred by producers is due to sizing and appearance defects. Education and awareness campaigns are generating wider acceptance of imperfect, but otherwise healthy and food-safe, products.

Primary producers must be aware of the demands for reduced or more **environmentally responsible packaging**. The issue of food packaging in the environment will affect primary producers as much as processors. Changes will be mandated by government or consumers, most likely both. Awareness around single-use plastics and their impact on the environment will drive change. This is an issue that impacts product quality, recycling capabilities, food safety, and food waste. Solutions are complicated and expensive. The pace of change on these issues

can be faster than primary producers are willing or able to absorb.

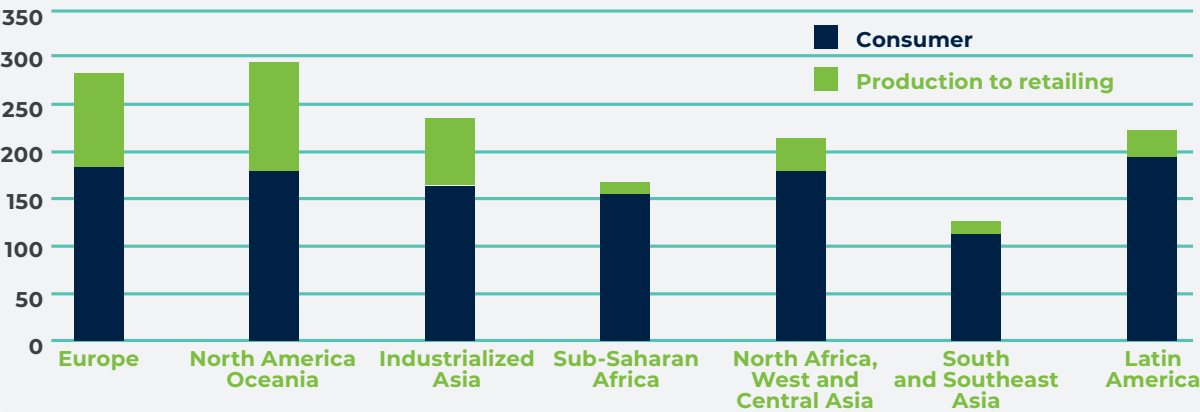
One issue that is not always part of the sustainability conversation is the **use of land and water**. There are some production areas in the world where this is a real challenge. To date we are not facing challenges on the same level in Nova Scotia however we need to be sharing information with customers and consumers about what is being done and any positive impacts on the environment. Crop rotation to nurture the land and opportunities to reduce water usage are both very positive stories that need to be shared.

Primary producers do have to ensure customers and consumers have the facts. If information is not accurate decisions will be made that can have a significant impact on cost of goods and operations. Reducing food waste, sustainable packaging and other initiatives need to be documented and shared with the marketplace.

CONCLUSION

Trends impacting food production play an integral role in how producers choose to operate their businesses. Controlled environment production, labour shortages, succession planning, food safety, technology and sustainability all influence the decisions of food and beverage producers. Consumers and customers drive the change, which impacts primary production and the pace of change is accelerating.

PER CAPITA FOOD LOSSES AND WASTE, AT CONSUMPTION AND PRE-CONSUMPTION STAGES, IN DIFFERENT REGIONS KG/YEAR



¹https://cahrc-ccrha.ca/sites/default/files/files/Labour-Employment/NAT_reportE_final.pdf
²<http://www.fao.org/3/mb060e/mb060e02.pdf>

Trends impacting the selling of food and beverage

Selling food and beverage is evolving and becoming more competitive as top line growth is limited and increases are usually achieved through market share change as opposed to growing the total market. The desire to deliver results in an industry where margins are very slim and consumers are changing quickly is a challenge. We see even more blurring of channels than ever before. To respond, traditional food and beverage retailers defend their share with changes to their operation and asserting pressure on suppliers to execute. Relationships with consumers are changing to be more personal and targeted where technology can improve the ability to interpret huge amounts of data. The legalization of cannabis will have an impact on many food and beverage categories with the introduction of edibles in the fourth quarter of 2019.

FOOD AND BEVERAGE ARE POWERFUL

TRADITIONAL FOOD RETAILERS ARE RESPONDING

RELATIONSHIPS WITH CONSUMERS ARE CHANGING

CANNABIS IS THE NEW FRONTIER

Food Delivery



FOOD AND BEVERAGE ARE POWERFUL

Food and beverage can be a big draw to any retail outlet. With the challenges facing retail such as too many stores, growth of online shopping and escalating costs for labour all retailers are looking for items that will bring consumers in the door. Food and beverage brings people in the door.

We are witnessing some unprecedented changes in how food moves through the supply chain from producers to consumers, and who controls each stage. There is much blurring of lines now as traditional producers integrate forward to own and control the **sales channel**. Producers and processors are selling more directly to consumers through farmers' markets, retail outlets or online. Similarly, traditional sellers are integrating backward to own their own means of production and processing. Examples include Sysco and Metro Stores buying or establishing meat and seafood processing capabilities.

While Canadian food retail remains dominated by a relatively small number of large chains, there is fragmentation happening. There has been more food purchased in **specialized retailers**, drug stores, farmers' markets, non-traditional channels like Dollar stores, mass merchants and direct online than ever before. It is difficult to quantify these sales through traditional methods like A.C. Nielsen as they do not monitor such sales. This complicates the sales process for producers and processors. The fragmented market brings opportunities and challenges.

Opportunities include sales outside the large national retailers, who are challenging to deal with, and sales to smaller more receptive customers. Challenges include much more complicated and expensive distribution options, more customers to manage and smaller orders.

Farmers' markets and specialty retailers are growing to serve a more ethnically diverse, educated and demanding consumer. No longer is a retailer like Pete's Frootique the only alternative, dominant independent. Masstown Market's expansion or the continued growth of sales outlets owned and operated by producer groups like Stirlings, Noggins Corner and Cogmagun Poultry all point to a demand for specialized, alternative outlets in more urbanized parts of Nova Scotia.

Changes to the value chain are an opportunity for producers and processors to assess the opportunity of online shopping growth on their own businesses. There are new avenues outside the traditional sales channels to sell more online or direct. Building a successful online business requires different skills and investments. The success in the premium steak category earned by a Nova Scotia company like Fuego Diablo (fuegodiabolo.com) is an example of selling direct to consumers in any market.

Fuego Diablo's founder Matt MacQuarrie believes other Atlantic Canadian food businesses can capture profitable **niches** selling food online when they focus on specialty items or specialty occasions. The unique proposition in his business is that USDA Prime aged

premium steak cannot be sourced from your local butcher. Higher average orders to offset expensive shipping, third party applications such as the Shopify platform and utilizing traditional media channels to drive traffic to the site are all requirements of successful online businesses. This is a different business from the traditional distribution models.

In **food service** the lines are becoming blurred as well. Is a meal kit taking sales from a grocery or a restaurant that delivers? Meal kit producers, restaurants that offer more catering and virtual “cloud kitchens” are growing to service the consumer who wants convenient and prepared meal delivery as an alternative to scratch cooking.

Food and beverage are in demand and produced everywhere in the world. The amount of food and beverage that cross international borders is staggering. This presents **opportunities for export** however it also increases the likelihood of a situation somewhere else in the world impacting prices and returns at home. The addition or elimination of a tariff or trade agreement can have huge impacts on individual processors or even industries. These are out of the control of the producer or processor and can even be in retaliation to an issue in an unrelated industry.

The power of food and beverage is good and bad. It is good because everyone needs food and beverage so there is tremendous demand. It is bad because everyone wants

to offer it and sometimes they devalue the offering to drive traffic and sell other products.

TRADITIONAL
FOOD RETAILERS
ARE RESPONDING

In a market where top line growth is limited, the traditional food and beverage retailers will fight to defend their sales and bottom line. They do see **more competition** coming from every angle. They are also used to asserting considerable power within the value chain as they controlled access to the store. They still control the store however not all food and beverage is purchased off these shelves.

Amidst all of the disruption, retailers, wholesalers and distributors will rely on what they know as they try to develop new concepts of selling. This will result in more **pressure on suppliers** to deliver better costs, better service level and more innovation. We have seen retailers like Loblaw and Sobeys change their own structure and expect suppliers to reduce costs because it is less expensive to sell to the retailer. They are also demanding orders be on time and in full. In some cases they are levying heavy fines to suppliers who do not meet their demands.

Technology is being employed to improve efficiencies, reduce costs and offer a different shopping experience. Self-checkout is common in food stores, robots are being used to check shelf

conditions and retailers' warehouses are full of new technology to improve order accuracy and reduce labour costs. With labour being a challenge for these businesses, we will see more technology in every part of their operations.

The store offering is changing as they try to differentiate. A program such as Sobeys 'local' field merchandising is an example where they will seek out smaller producers and processors to provide access to a limited number of stores. This allows Sobeys to offer a unique listing base from the competition and a chance to explore the performance of these products in a manageable test market.

The percentage of food purchased online continues to grow. Estimates in Canada are still below 5%, however in Asia this can be as high as 25%. Traditional retailers continue to invest in **online shopping**, click and collect and delivery in selected markets. These online programs build a personal profile of each consumer and catalogue items that are frequently purchased. The retailer is also building an online profile of that consumer and will use the data for future targeted marketing initiatives. Loblaw offer click and collect, delivery in select markets and they have launched their own virtual mall. This venture is similar to Amazon and Alibaba where vendors can create their own space for selling. Walmart lists thousands of new items online every day and they want consumers to shop

Walmart, regardless of whether it is online or in person; whatever works for the shopper at the time. Sobeys is partnering with Ocado from the UK to build distribution centres that are built to exclusively pick and ship single units for online orders.

Conventional grocery retailers and even Amazon itself struggle with the growing demand for **food delivery**. Quality in perishable departments, demand for controlled temperature transport, and order accuracy all pose complications. Actual delivery costs are higher than consumers' willingness to pay in a country like Canada where there are very few dense urban markets.

Close to one third of the Canadian market is controlled by American food retailers (Walmart, Costco and Whole Foods Market). Walmart and Costco are significantly larger than Canadian retailers and Canada is the market for them. They are reacting to changes in the US market like the introduction of the German discounter Lidl. These small discount stores with limited listings of predominantly private label products are growing rapidly in market share. The reaction of the big American retailers will be felt in Canada soon.

Traditional formats are working hard to figure out their future in this new world of food and beverage retailing. Niche, premium, and experiential retailers are holding their ground and traditional retailers with a well-established value proposition

seem to be able to translate this to different mediums. The weaker value propositions are losing share and struggling to survive. Producers and processors must watch retailers carefully to ensure they put the focus on the right markets that are growing.

RELATIONSHIPS
WITH CONSUMERS
ARE CHANGING

Retailers strive to develop long-term profitable **relationships with consumers**. This can be a challenge when they have trained them to look for weekly specials. A.C. Nielsen reports that close to one out of three items is sold on temporary price reduction. Despite this reliance on price to influence behavior, there are a number of other factors impacting the sales and marketing of food and beverage.

Rewards programs and loyalty cards are integrated into many food retailers' value proposition. According to Bond Brand Loyalty, 66% of Canadians change when or where they shop to get more points and 58% said they adjust how much they spend to maximize loyalty benefits. Sobeys have been offering Air Miles to consumers for many years and they can use this to influence the shop and communicate directly with cardholders. Loblaw has combined the PC Points programs with Shoppers Drug Mart's Optimum program to create PC Optimum where members earn points on every shopping trip. Producers

and processors can purchase Air Miles at Sobeys or Optimum points at Loblaw to be offered on their products. This is beneficial in that execution can be regional and the charges are only for products purchased by members. The investment is more targeted and can be substantially lower than the traditional off invoice deals. There will be more emphasis on these programs to influence in store behavior and generate consumer profiles. These profiles will be used for targeted promotion and to generate a shopping list for consumers in the future.

Technology is evident in more than loyalty programs. Recently Sobeys launched a Smart Cart that is designed to help consumers find everything they need, keep track of the items in the cart and eliminate the need for scanning. The biggest benefit in the future will be to use this **technology to capture data** about the shopper, their habits and also influence them right at the shelf with special offers. Loblaw are installing electronic shelf labels in many stores across the country. This gives them considerable flexibility in pricing and it reduces their labour cost significantly. One person in an office can control the pricing in hundreds of stores and there is no investment in labour to physically go to the shelf to change the paper label.

Traditional food retailers were heavily invested in the weekly flyer. Printing costs, effectiveness and sustainability pressures are all

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reducing the importance of this vehicle. The communication with consumers is moving to mobile and other channels.

Larger brands like Kraft Heinz have been losing market share to smaller, innovative new brands that are proving more adept at meeting a growing array of unique sets of **consumer preferences** – gluten free, zero fat, low calorie, vegan, nut free, non-GMO etc. This opens the door for innovative new product options from potentially smaller and new players. It also fragments the market, can lead to smaller production runs, higher unit costs and lower sales per SKU, and increases the marketing challenge of achieving sustainable, longer term sales.

CANNABIS IS THE NEW FRONTIER

A study released by Deloitte entitled *a society in transition, an industry ready to bloom, 2018 cannabis report* estimated the legal market for raw cannabis to be up to \$4.34B. Experience in US states where the expansion from raw cannabis to edibles has happened show that the market sales will at least double. It is possible the Canadian market will reach \$10B when production and availability of raw cannabis and edibles meet demand. This would be approximately the same dollar sales as fruits and vegetables at retail.

The fragmented execution for **cannabis retail** across the country presents challenges for building sales. Recently in New Brunswick the provincial government has declared they will not operate the outlets in the future and have put out a request for proposals to operate the locations. It is likely we will see more change as the potential for thousands of new items is on the horizon. The distribution and retailing of these products will put considerable strain on the current retail model. They also have the potential to impact traditional food categories where there will be duplication.

Edibles will be designed to deliver a specific purpose to the user. Products containing THC will appeal to the more traditional cannabis user where as products that include CBD will open the market to a much broader number of consumers. These products are available now for people and pets in many US states. The tighter controls over THC and CBD levels in Canada should deliver a more predictable result for consumers in these categories.

Consumers are not all sophisticated in the raw cannabis market and the bud tenders can influence a huge proportion of sales. The regulations still limit any form of branding and consumer advertising. In the US this has evolved to some players capturing more share with better execution of branding

and consumer advertising. If regulations change in Canada we will see significant growth in this race to capture a huge market.

Consumer acceptance for **medicinal use** is gaining momentum. Doctors are prescribing this treatment now for pain and seizure relief. Clinics are available where experienced medical practitioners will analyze the symptoms and find the right solution that includes prescriptions for CBD oil.

This market will evolve quickly to include innovation in product development and selling as regulations change. Similar to beverage alcohol and tobacco it will require everyone in the value chain to understand changes and adapt to them.

CONCLUSION

Selling food is evolving and the changes being made have repercussions throughout the value chain. Often the lead time to change is longer than the window for success. Producers and processors will have to work closely with their retail partners or perhaps even sell directly to consumers to ensure their business is relevant in an environment of fast paced change.

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