

OFPA Spring Technical Meeting, "All About Traceability" April 5, 2018

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Who is the Canadian Shopper?



Graying Population



40% of Canadians are 45 years + By 2026 this will increase to 48%

Smaller Households

More single-person

households than ever before!

Working Mothers



73% of Moms working in 2015 vs 39% 40 years ago

Culturally Diverse



In 2031, the Ethnic Shopper will represent 31% of the population!

Source: GAIN Report - Retail Foods, The Retail Landscape of Canada, USDA, Feb 21, 2017



What do they want?

Source: GAIN Report - Retail Foods, The Retail Landscape of Canada, USDA, Feb 21, 2017

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Nearly all Canadians eat fruits and veggies

Even if most are not eating their recommended daily servings (46%), the consumption of fruits and vegetables by Canadians has increased significantly in the last decade putting more pressure than ever on supply.

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Source: Mintel – Vegetables and fruit, Canada – May 2017 / GAIN Report - Retail Foods, The Retail Landscape of Canada, USDA, Feb 21, 2017

Canadians – Bargain Shoppers?

Canadians remain cautious in their spending and practice more cost-saving measures. 57% compare food prices in general and lower income consumers are less likely to purchase fresh fruits and vegetables.



Source: Mintel - Vegetables and fruit, Canada - May 2017

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Canadians Love Frozen Fruit!

After years of double-digit growth, the market is still at +6% with room to continue its growth as household penetration is at 47%.





Natural: it's just fruit!

Healthy: Might be better than fresh according to new study from the University of Georgia*

Convenient: Already cut & washed

Accessible: Often less expensive than fresh

Portion Control: Easy because its frozen + Resalable bags

Reduces Waste: Across the supply chain + Home

New Tastes and Flavors: Offer fruits that are not in season + More exotic, less accessible fruits

Source: Mintel – Vegetables and fruit, Canada – May 2017 \ Nielsen 52 weeks ending Dec 31, 2016 vs YAGO – All Channels/ FRBuyer.com – April 2017

Canadians want to know!

Canadians increasingly educate themselves of the health benefits and risks associated with the foods they eat.





88% of Canadians are "somewhat confident" in the overall safety of their food supply in Canada and they want to know what the government and industry are doing to ensure all foods are safe.



Source: GAIN Report - Retail Foods, The Retail Landscape of Canada, USDA, Feb 21, 2017

Where does Nature's Touch fit in?





- Almost **7/10** retail bags purchased in Canada are packed and sourced by Nature's Touch
- # 4 player in the United States
- Young dynamic management team with a lot of passion and sense of purpose to do the right thing and make sure we improve people's lives through healthier, affordable and safe eating options.
 "It's in our nature"

Nature's Touch Traceability Program

- As our product is preserved, our traceability potential is very good.
- For the most challenging of raw materials 5 years ago, traceability to farm was from one retail bag to a maximum of 20 potential farmers. Today, we are down to a maximum of 5 potential farmers. We still have work to do on this front.
- We are now investigating Blockchain technologies for our cultivated blueberry process in BC.
- Traceability focus today is based on food safety and our choice of supply takes this into consideration



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Nature's Touch Food Safety Program

- All of our suppliers are GFSI certified ٠
- In depth knowledge of supply base with a guarantee to visit ٠ each supplier at least every year by John Tentomas, buyers and or OC staff.
- All Nature's Touch team members who visit farms and • plants are trained in food safety.
- Annual Supplier Report Card Review ٠
- Supplier, commodity and country of origin make up the ٠ food safety profile and determine the level of control required
- Staff of 32 in QC Department (10% of our workforce!), ٠ covering supplier risk assessments, audits, conducting extensive physical, chemical, microbiological and organoleptic analysis



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Nature's Touch Food Safety Program

In-House Laboratory Analysis

• Microbiology

- "Vidas" pathogen testing using Phage technology
- "Tempo" system for yeast, mold, Salmonella, TPC and other microbiological tests

• Pesticide Analysis

- "LC-MS and GC-MS quadruple system" for the identification and quantification of pesticides

Virology

- "Real-time PCR" procedure for application using guanidine thiocyanate disruption and silica adsorption-based method to extract, detect and replicate hepatitis, G1 and G2 strains of noroviruses.



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Three Lines of Defense – The Core of our Traceability Capabilities FIRST LINE – GROWER/HARVESTER

Nature of product

- Is it grown close to the ground?
- What is the pH?

Harvesting

- Machine harvested or Hand harvested?
- Migrant Labor represents majority of hand picked labor. What controls are in place at harvesting level to mitigate food safety risk?
- Any processing done at the field level (i.e. cutting)?

External Farm Risks

- Water source and testing frequency
- Adjacent land uses



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Three Lines of Defense SECOND LINE – PROCESSOR

Traceability

- How many farms feed into the processor?
- GAP Certified If processor only claims to use GAP certified product, what systems are in place to ensure all product is indeed sourced from GAP certified farms?

Third Party Audit Scheme/NT unplanned visits

- All suppliers must be part of a GFSI standard
- Nature's Touch team also audits our processors we give minimal notice to ensure that we are getting a true look at how the company is operating day to day

Critical Control Point – Kill Step

- Organic certification does not allow for chlorine based disinfectants
 - Converted many of our organic suppliers in using CLO2
 - Ozone is a strong disinfectant, but very unstable and is based on organic load



Three Lines of Defense

SECOND LINE – PROCESSOR

Environmental Sampling Programs

- Regular review of suppliers internal environmental testing results and corrective actions
- Environmental sampling has become a big focus for Nature's Touch

Vertical Integration

- Grower/processor is preferred, but checks and balances are reduced
- No guarantees grower/processor will source from own fields



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Three Lines of Defense

THIRD LINE OF DEFENSE– PACKER

As a packer Nature's Touch provides a 3rd line of defense

- Using statistically relevant testing methods that determine what to test for and at what frequency
- Our methods allow for us to have confidence in the safety of our products down to within a two hour production period for final retail products.

Packer can provide additional quality control checks to ensure quality of product meets customer requirements

 Rejecting a load is easy when it is in bulk, very difficult when it is already packed as the ability to redirect is limited. Inherent Risk Control Risk Residual Risk Residual Risk

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Need to be engaged with Government and Academia

- Determined to pioneer a validated "dry" kill step for fresh and frozen produce.
 - Working with Harvard on the use of Nanotechnology. Have successfully achieved log 5 kill using water with pico concentrations of H2O2 and citric acid on berries within 1 minute.
 - Working with Xenon Corp. in developing industrial scale machine using Pulsed-UV light along with rotating belt technology.
- Co-Hosted with the Univ. of Guelph a Virology Symposium on produce - Sept 2017
- Committed to the creation of the Canadian Food Safety Network (CFS-NET) as an industry partner guaranteeing support of \$1MM.



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