



# **Farm Food Safety :** *strategies to help travel the road to Certification*

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Elsie Friesen – Food Safety ~~Provenance~~ Education Specialist

Ministry of Agriculture / Industry Development

## Historical Context: *Old Legislation, Recalls, & Food Safety*

### The Old Way

- The old Legislation
  - limited to certain commodities,
  - primary criteria for crops was 'Grading';
  - inspections limited to end of food chain;
  - No inspections of on-farm good agricultural practises (GAPs)

### The New Way

- **RECALLS** – industry took on the role of setting GAP Standards using Audits as verification
- **USFDA Food Safety Modernization Act (FSMA)**
  - Food Safety Rules;
  - Foreign Supplier Verification Rule;
  - Third Party Certification Rule

### The Food Chain



Agriculture



Transportation



Processing



Retail Store



Restaurant



# Poll Question:

*(who is on the webinar?)*

- As an attendee are you:
  1. A producer?
  2. An advisor or consultant?
  3. A government employee wanting to learn more about GAP?

# ***WHY should hazards and risks matter to producers/growers?***





# Unknowingly...

## Consumers paid the RISK price



- **Listeriosis** deaths of 33 and 147 illnesses, and one miscarriage in 28 states (Summer, 2011)
- **One out of 5 died**

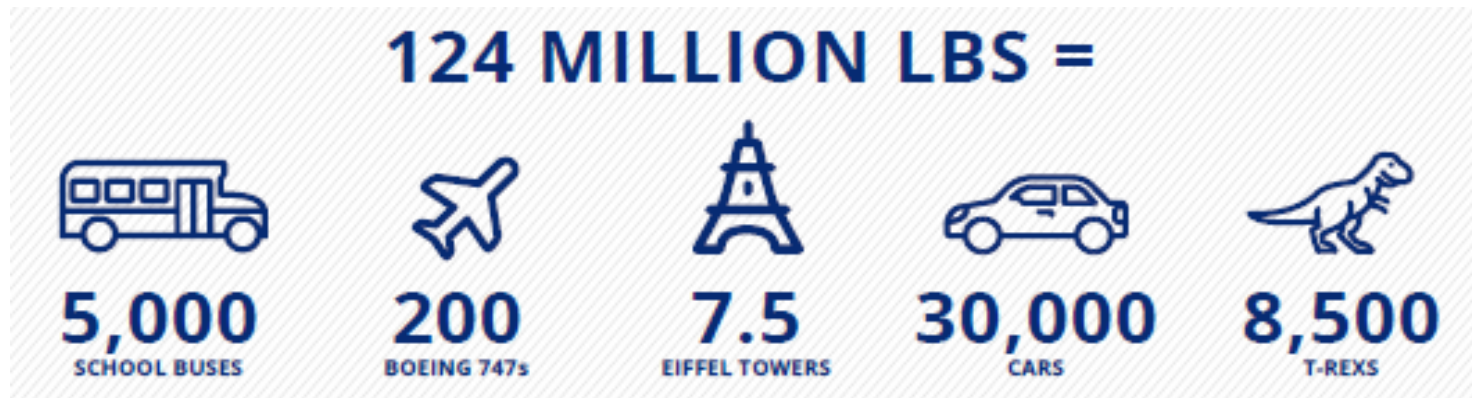


- 2008 widespread outbreak of **listeriosis** in Canada linked to cold cuts from a Maple Leaf Foods plant in Toronto. There were 57 total confirmed cases, resulting in 22 deaths
- **One out of 2.5 (two out of 5) died**

## 2018 Food Recalls Year in Review (USA)

Ref: Food Industry Council LLC / Shawn K. Stevens - Lawyer

- Total Recalls: 684 with 125 USDA Agricultural Food Recalls
- Recall Reason: 213 Pathogen-related
- Total known wgt. of 460 recalls = 124,003,277 lbs
- Average wgt. (with 2 largest removed): 70,339 lbs



## *Goal of Certification = Prevent a Recall*

### Colorado Jensen Farm – Cantaloupe Recall

"This has been a huge tragedy. We are very, very sorry. We hope it leads to better understanding of food safety," Eric Jensen said.

"My most sincere apologies and deepest regrets. I hope the victims' meeting helped," Ryan Jensen said, "I do know that much has been gained in food safety understanding both here and outside the country because of this."



- Federal officials found numerous food safety violations at Jensen Farms, even though the facility got a **96-percent (or superior) rating**, saying it met or exceeded established cantaloupe production standards.
- Is the 'audit' a true test of how well good agricultural practices are implemented?





# Olympian Strategy: #1

## *Learn the Standards of the game*



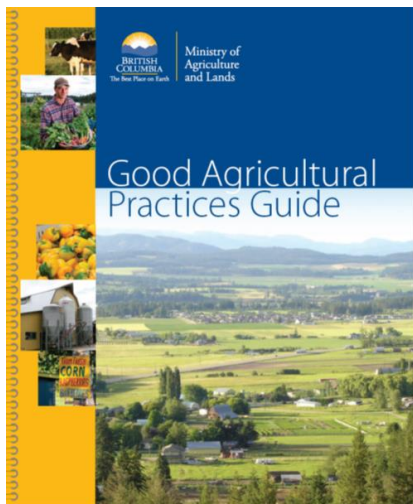
1. Take time to understand the rules of the game
  - It is Buyer driven
  - Standard Practices developed by Industry based on science
  - **Sampling methods**
  - **Risk Assessments** along with **Corrective Actions**
  - **Traceability**
  - A Yearly event -Audits do not carry over
2. This applies to producers, advisors, auditors, policy makers



## Which Standard to learn?

### 1. The Basics:

BC Good Agricultural Practices (on website)



### 2. Industry Standards:

15 different commodities reviewed by CFIA & provinces, for example:

- Verified Beef
- Start Clean – Stay Clean (Egg)
- Canadian Trucking Alliance
- Canadian Bee Industry
- CanadaGAP – for Fresh Fruits & Vegetables, and Greenhouse

Alternatives:

- International Standards – Primus, Global G.A.P., SQF, etc.

**3. CFIA** – based on Safe Food for Canadians Act & Regulation: you are required to write a *Prevention Control Plan* when selling outside of your province or exporting to another country

## CANADAGAP FOOD SAFETY MANUAL FOR GREENHOUSE PRODUCT®

Commodities covered within this Manual:

Production, Packing and Storage:

Tomatoes, Cucumbers, Peppers, Leafy Greens (excluding microgreens)

## CANADAGAP FOOD SAFETY MANUAL FOR FRESH FRUITS AND VEGETABLES®

NOTE: Greenhouse product is covered in a separate manual.

Commodities covered within this Manual:

Production, Packing and Storage:

Potatoes

Leafy Vegetable and Cruciferae:

Leafy – Lettuce, Spinach, Edible Flowers, Mixed Greens, Baby Salad Greens, Asian Greens, Arugula, Green Onions, Leeks, Swiss Chard and Kale

Head – Broccoli, Cauliflower, Cabbage, Brussels Sprouts, Radicchio, Kohlrabi and Lettuce (Iceberg, Romaine, etc.)

Leaf of Root Crops – Belgian Endive, Dandelion Greens, Beet Greens, Turnip Greens and Corn Salad

Fresh Leafy Herbs – Parsley, Cilantro, Fresh Dill, etc.

Petioles – Celery, Fennel, Rhubarb

Small Fruit:

Strawberries, Raspberries, Blackberries, Blueberries (High Bush, Wild), Cranberries, Saskatoon Berries, Currants (Red, Black) and Other (Gooseberries, Elderberries, etc.)

Tree and Vine Fruit:

Pome Fruits: Apples, Pears, Quince

Stone Fruits: Peaches, Plums, Apricots, Nectarines, Cherries (Sour and Sweet) and Sea Buckthorn

Vines: Grapes, Kiwi

Combined Vegetables:

Asparagus, Sweet Corn, Legumes (Beans and Peas) and Globe Artichokes

Bulb and Root Vegetables: Garlic, Beets, Carrots, Onions, Radish, Parsnips, Rutabaga, Turnips, Shallots, Jerusalem Artichokes and Other (Horseradish, Sweet Potatoes, etc.)

Fruiting Vegetables: Peppers, Eggplant, Melons, Pumpkin, Squash, Cucumbers, Tomatoes and Okra

Repacking, Wholesaling and Brokerage:

Fresh Fruits and Vegetables

**CANADAGAP**®

CanadaGAP Program  
245 Merton Place, Suite 312  
Ottawa, Ontario, Canada K2H 9E8

Version 7.1

2018

## Olympian Strategy: #2

*Learn about the Competition:  
hurdles/hazards that cause your defeat*



**But...we always wash our vegetables?**



Legal problems  
plus jail time

Recalled produce

Financial  
Devastation

**Media HEADLINES are  
NOT Kind to the losers**

Confusion,  
Shock...

Death of Consumers

Loss of Farm  
And Income

Reduced Market Confidence



## More frozen berries recalled in Australia after hepatitis A contamination scare

At least five people have contracted the infection in the food scare, prompting Victorian company Patties Foods to expand its recall



📷 The frozen berry mix that has been recalled contains strawberries, raspberries and blackberries from China and blueberries from Chile. Photograph: PA

More frozen berry products have been recalled due to possible hepatitis A contamination, with at least five people contracting the infection in the food scare.

## As a producer do you know:

- How safe is your irrigation water? **AND** how safe is another growers irrigation water?
- Are your pickers using proper hygiene? **AND** do other producers follow your Standard of hygiene rules?
- Where does your product end up? **AND** with what other products does it have cross-contact with?
- Do you know how your products are used by processors?





## Olympian Strategy: #3

*Use the 'Olympic-mindset' of determination*



- **Network:** attend workshops, LMHIA Short Course, webinars, etc.
- Use positive mind-talk of '**Benefits**' to motivate you to look for better performance levels and for when the going gets tough



## ***Benefits of Implementing Food Safety***

- ✓ Markets /Trade/Reputations stay robust and sustainable as consumers trust and show confidence in buying B.C. food products
- ✓ Indicates your accountability and responsible leadership to consumers, bankers, insurance agents, your fellow producers
- ✓ Successful audits are based on producer implementation of best practices developed from science-based research
- ✓ Gaining the Certification through audits - creates positive news media stories which support the B.C food safety reputation

**“Grow BC – Feed BC – Buy BC”**

**Good Agricultural Practices**  
**BEST**

**B.C Agri & Seafood  
Teams WIN**

**GLOBAL  
Reputation**

# **SUCCESSFUL FOOD SAFETY HEADLINES**

**Leadership**

**CanadaGAP @461  
successful audits**

**Proof of Provenance (Origin) =  
Food Safety starts on the FARM**

**Robust, Sustainable Markets**

## Olympian Strategy: #4

*Use 'technology' to your advantage  
to improve your practices which affect audit score*



- Make a video of your SOPs
- Invest in software to electronically record and keep your records (e.g. FCC Field Manager)
- Learn about new innovative ideas



## Learn new best practices and explore other resources

### ASSEMBLING A SAMPLING KIT

Your sampling kit should contain the following items:

- ☐ Cooler
- ☐ Ice pack(s)
- ☐ Sanitary hand wipes
- ☐ Single-use gloves (e.g., Nitrile)
- ☐ Alcohol swabs
- ☐ Permanent marker
- ☐ Sterile sample bottles



Sterile sample bottles can be obtained from the laboratory that will be performing the test.

Gloves, sanitary hand wipes, alcohol swabs, and permanent markers can be purchased from your local drug store.

Cooler and ice packs can be purchased at your local hardware store.

### COLLECTING A SAMPLE

1. Label sample container with sampling location (e.g., farm/field), date, and time of collection.



2. Wash or wipe hands thoroughly with hand wipes before putting on clean gloves.
3. If sampling from a sprinkler or sample port, clean the area thoroughly with clean alcohol swabs.

- a. Ensure you wipe both the inside and outside of the nozzle.
- b. Allow water to run for 20 seconds before collecting the sample to ensure residual alcohol has been washed away.



4. Collect the sample:

- a. Open the container, keeping the lid in the opposite hand to avoid contamination.
- b. If sampling from surface water, dip the container into the water. Avoid any debris or dirt/mud.
- c. If sampling from equipment, allow the water to flow into the container. Avoid touching the sample bottle to the equipment.



5. Fill the container to fill line. Seal the container without touching the lip or inside of the cap.
6. Place the filled container into the cooler with ice packs. The sample must remain chilled until arrival at the laboratory.
7. The sample(s) must be delivered to the laboratory within 24 hours after collection.

### RECORDS AND DATA ANALYSIS

Growers should keep records of sample results. This can be done easily using Microsoft Excel. Data should include the sampling date, sampling location, and the test results.

More recent guidelines for water quality analysis (e.g., FMISA) require long-term trend analysis of results, rather than just single samples.

### SAMPLING PRECAUTIONS

#### Avoiding contamination

Contamination of samples from outside sources may lead to **artificially high levels of indicator organisms**. To avoid contamination:

- Wash hands thoroughly before collecting the sample.
- Avoid touching the rim or inside of the sample container.
- When collecting from equipment, clean sample port or sprinkler head with clean alcohol swabs.

#### Ensuring a representative sample

Old water in pipes, weather events, and dirt and debris may also lead to **artificially high levels of indicator organisms**. To ensure an accurate sample:

- Run water for from sample ports (3 minutes) or sprinklers (15 minutes) before sample collection. This will remove all old water from the pipes.
- Avoid taking a sample after heavy rainfall or during flooding periods.
- Avoid dirt and debris in samples (as much as possible).



## Maintaining the Safety of Fresh Produce

### Monitoring the Microbial Quality of Agricultural Surface Waters



in partnership with:



### BACKGROUND

#### Why should I test?

Monitoring of the microbial quality of agricultural water is important for the safety of fresh produce.

Foodborne pathogens, such as pathogenic *E. coli*, may be present in water and can be transferred to produce where they are difficult to wash.

#### What are indicator organisms?

Indicator organisms are associated with the presence of foodborne pathogens.

Pathogens are seen with the foodborne illness. Testing for indicator organisms and time quality of through.

The results are used to assess the safety of the produce.

## Olympian Strategy: #5

*Training practices take place during off-season –  
reduce stress during busy season*



- Preparation during the off-season pays off big during harvest
- Build a To Do List (when to do water sampling, maintenance programs,)
- Stay up-to-date on changes (e.g. CanadaGAP = February)



## **Olympian Strategy: #6**

*Olympic Champions use Team support  
to ensure they achieve the Podium Goal*



*Learn how to access  
your Team for help*





## Food Safety Certification?

*Your proof of  
preventive practices  
**STOPS** a Recall from  
happening*



1. Understand the rules of the Standard you are using
2. Learn Risk Assessments & Corrective Actions that beat your competition
3. Keep a positive mind-set
4. Use innovative technologies to your advantage
5. Work on it during the off-season
6. Get to know your team for support options



## Poll Question: *(was this of value?)*

- Your evaluation of this webinar?
  1. Yes, as a producer I will start the path to Certification.
  2. NO, as a producer I am not ready for Certification – I need more information.
  3. As someone interested to support agriculture, I did experience an ‘ah ha’ regarding farm food safety.



## Thank You

Need help in:

1. Finding a workshop?
2. Applying for funding?
3. Preparing for an audit?

[AgriServiceBC@gov.bc.ca](mailto:AgriServiceBC@gov.bc.ca)

1-888-221-7141

