ONTARIO FOOD PROTECTION ASSOCIATION

OFPA Guardian

YOUR SOURCE FOR ONTARIO FOOD SAFETY NEWS AND INFORMATION!

IN THIS ISSUE

List of April Recalls & Alerts - When a product is recalled, or an advisory or alert is issued, it means our surveillance tools are working. Recalls and safety alerts are sent out when our regulatory bodies such as the CFIA and the FDA have important information to share—meaning we can feel more secure when choosing and using products. *CFIA – Continued on pages 11, FDA on page 12.*

Government of Canada / Gouvernement du Canada

Did you know? The Canadian Food Inspection Agency uses a risk-based approach? *Continued Page 4*

OFPA Quarterly Newsletter

by Paul J. Damaren, OFPA Board, Director: Lead for Newsletter Committee

Ford defends vaccine rollout as Ontario sees 3,670 new COVID-19 cases, record hospitalizations.

1,822 people with COVID-19 now in hospitals, Ministry of Health says. CBC News · Posted: Apr 13, 2021 10:19 AM ET | Last Updated: April 13.

Amid ongoing confusion about when and how young people in COVID-19 hotzones can be vaccinated, Ontario Premier Doug Ford defended the province's vaccine rollout plan. "I have to tell you that 2.8 million people didn't find it confusing," Ford told reporters Tuesday.

"It's very, very simple," he said, before sharing the COVID-19 booking website and phone number — despite the fact that those 18-49 cannot book through those means.

On that point, Ford said, "I never mislead anyone. I'm very, very clear." Health Minister Christine Elliott also played defense Tuesday, maintaining that politics did not play a role in the province's identification of particular hotspots.

On Monday, CBC News reported that five of the 114 designated postal codes have rates of infections, hospitalizations and death below the provincial averages.

Meanwhile, CBC News identified seven postal code zones that have felt a greater impact from COVID-19 as measured by the province's official criteria, yet are not classed as hot spots. All are located in ridings held by the opposition parties.

Continued Page 3

April 14th, 2021 – 2:28pm EDT., McDonald's said Wednesday that it will **mandate worker** training to combat **harassment, discrimination** an d violence in its restaurants worldwide starting next year. The training will be required for 2 million **workers** at 39,000 stores worldwide.

"It's really important that we be very clear: A safe and respectful workplace where people feel like they're going to be protected is critically important for our business," McDonald's President and CEO Chris Kempczinski said in an interview with The Associated Press. "It's just what society is expecting."

The change is part of a larger reckoning over sexual harassment at the world's largest burger chain. At least 50 workers have filed charges against the company over the last five years, alleging physical and verbal harassment and, in some cases, retaliation when they complained. The problem wasn't confined to restaurants. In November 2019, McDonald's fired its former CEO Steve Easterbrook after he acknowledged having a relationship with an employee.

Kempczinski, who joined McDonald's in 2015, said the company needs to set expectations and then continually refer to them, especially since staff turnover in restaurants can be high.

"If you're not constantly talking about values and keeping them in the fore, if you get complacent, then perhaps they're not as obvious to people or they're not as inspiring as they could be," he said.

2021 OFPA SPRING VIRTUAL TECHNICAL MEETING & CLIVE KINGSBURY POSTER COMPETITION OVERVIEW OF EVENT

April 15, 2021 marked the OFPA's 2nd virtual conference. ***Continued Page 19***

Presidents Message

To OFPA Members, Partners, Industry Colleagues, and Friends:

I write this message after the conclusion of a very successful OFPA (1st All) Day Virtual Spring Technical Event and Clive Kingsbury Video Poster Event on April 15,2021; and at the recent announcement of further "lockdown" measures by the provincial government due to the increase in variant cases.

Our deepest sympathies to our loved ones, colleagues, friends and family impacted by this tenacious pandemic. We are also supportive and appreciative of all the food employees continuing to work and supply our essential food products. The OFPA continues to feature speakers or panels to share the best information available for coping with Covid-19 and allow our food plants to remain operational.

We at the OFPA are very thankful for the amazing sponsorships, donations and member turnout. Despite this being a difficult time for everyone with Covid -19 the OFPA seems to be on the way to financial recovery and its' viability.

A big thank you to Gwynne Sistker for spear heading the Spring Event and the members of the committee that supported the event ; Nadia, Denise, Laurie, Megan, Greg and Brett . Special mention to Aaron Aboud for coordinating the 1st ever Clive Kingsbury Video Competition. Thank you to Andrew Clarke for continuing to assist us in increasing our memberships, Paul Damaren for coordinating, writing and editing our amazing Food Safety Guardian newsletter , and Angela Bernoski for her work on updating our Constitution & By-Laws and general counsel as Past President.

On the horizon we have some exciting things happening. Anal Dave from the Original Cakerie will be joining the OFPA as a Director-At-Large. Welcome Anal! We have the Social Networking Event (September 23rd) and Fall Food Safety Symposium and Annual General Meeting (November 18Th) coming up. At this point we are not sure whether they will be virtual or in person because of the ever changing Covid situation. Nadia Narine is leading both events, and the line-up of speakers for the Fall Food Safety Symposium & AGM is outstanding!

Brett Dooley is leading an exciting project; starting OFPA's very own You Tube channel where we will launch our Food Safety Now podcast! Stay tuned.

Thank you all for your continued support, stay safe and please participate in our upcoming events and initiatives. Tell a colleague or friend about the OFPA!

We are Ontario's Food Safety Forum and a great value!

Sincerely;

Joe Myatt

UNITED FRESH PRODUCE ASSOCIATION

UNITED FRESH MEMBER ALERT

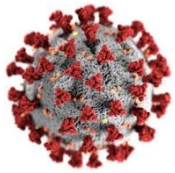
USDA Announces Produce Box Program as Part of Emergency Assistance

USDA AMS has announced that it will begin a healthy produce box program as part of the larger Temporary Emergency Food Assistance Program, or TEFAP. Click here for more information about the Qualification Requirements for selling TEFAP Fresh Produce. We understand that vendors that have

previously received BOAs are automatically included in AMS' Qualified Bidders' List.

Questions can be sent to LaShawne Brown, lashawne.brown@usda.gov or to TEFAPFreshProduce@usda.gov with your company name in the Subject line.

United Fresh appreciates that USDA is including fresh produce boxes in the TEFAP program, but strongly urges that a new Produce Box program be developed as part of a fundamental realignment of USDA feeding programs. USDA recently concluded its public listening session and comment period in which it was heard loud and clear across the country that this program is an important new way to deliver fresh healthy foods to people in need.



United Fresh's 80-member working group on the Produce Box Program submitted some 30 recommendations to USDA on ways to best implement the program for the future, and we look forward to continuing our dialogue with USDA leaders on implementing a much broader new program.

Ford Continues Vaccine Rollout

"continued" from page 1

Ford spoke at the BAPS Shri Swaminaraayn Mandir, which has been set up as a pop-up vaccination clinic in North Etobicoke, identified by the province as a COVID-19 hot spot. The clinic, set to run for three weeks, is aiming to vaccinate some 15,000 people.

Operated by the BAPS Charities in conjunction with the provincial health ministry as well as William Osler Health System and Toronto Public Health, the clinic is one of multiple COVID-19 vaccine sites the province says will be available for residents aged 18 and older in high risk settings.

More clinics like this, run through faith-based organizations, employers and other community organizations, will open in the coming weeks.

Education workers who work or live in hot-spot postal codes in Toronto and Peel will be provided with an eligibility letter from their local school board to access a shot, the province says. Those workers can schedule appointments through the provincial vaccine booking portal starting starting Tuesday.

The province also released criteria for employers interested in hosting on-site clinics. Those criteria include: being located in a hot spot community, either having had an outbreak or being at risk for one, having a plan for vaccinating employees who can't work from home as well as people in the local community.

Just how 'simple' is it to get vaccinated?

A team from Humber River Hospital administers the Moderna COVID-19 vaccine at the TARIC Centre, Toronto and Region Islamic Congregation, on Apr. 7, 2021, as part of a community outreach program to get seniors vaccinated at their place of worship. (Evan Mitsui/CBC)

Here's a look at how complex the situation is:

- If you're 60-plus, you can book at a mass vaccination site or pharmacy. This should be relatively straightforward.
- If you're 55-plus, you can book through a pharmacy if there is one offering vaccines nearby. This can be trickier in many areas.
- If you're 50-plus in a COVID-19 hot spot — and you'll have to search to figure out if your postal code is in fact a hot spot — you can go to a mass vaccination site.
- Those under 50 in hot spots can now qualify, too, but you can't book through the provincial system. Instead, you'll have to search for a mobile or pop-up clinic. Others under 50 who are eligible in Phase 2 of the vaccine rollout — like education workers or others deemed a priority — can book but will also need to bring paperwork.

There are tens of thousands of people living in COVID-19 hot spots and it's clear the province will not be able to vaccinate all of them immediately. On Tuesday, officials confirmed the province doesn't even have enough vaccine supply to give child care workers (who remain at work despite the stay-at-home order) their first doses.

Further, the province only decided last week to focus on hot spots, marking a major shift in its vaccine strategy.

Test positivity tops 10% for 1st time

Meanwhile, Ontario reported another 3,670 cases of COVID-19 on Tuesday, as the test positivity rate logged by labs topped 10 per cent for the first time and total admissions to hospitals and ICUs climbed to new pandemic highs.

According to the Ministry of Health, there are 1,822 people with COVID-19 in Ontario's hospitals. Of those, 626 are being treated in intensive care units for COVID-related illnesses and 422 require a ventilator.

Hospitalizations in the province previously peaked at 1,701 on January 12, based on the ministry's data.

Elliott said yesterday that the province is exploring how to boost hospital capacity to cope with the influx of COVID-19 patients, particularly in Toronto and surrounding regions. Hospitals have already begun ramping down non-emergency procedures, inevitably adding to a surgical backlog that already stands at more than 245,000 from earlier waves of the pandemic.

- Ontario daycares are still open but some say a shutdown may only be a matter of time
- Ontario shuts down in-person classes again amid surge in new COVID-19 cases

Toronto's Hospital for Sick Children, also known as SickKids, announced yesterday that it would accept up to 50 pediatric patients from 14 other hospitals in the GTA in a bid to create space for more adult COVID-19 patients at those facilities. The pediatric units at those 14 hospitals are effectively closed for the time being, with some specific exceptions.

Just last week, SickKids opened an eight-bed intensive care unit for younger adults, up to a max of about 40 years old. The president and CEO of SickKids, Dr. Ronald Cohn, told CBC News that as of last night, the temporary unit is at capacity.

Cohn added that it's the first time in its history that the hospital has had to accept adult patients.

"We actually went through our archives to check if this had ever happened, and it is in fact an unprecedented situation," Cohn said, adding an assurance that care for children at the hospital will not suffer as a result.

Did you know?

Continued from page 1, to verify that domestically produced and imported products meet Canadian standards and regulations. CFIA compliance and enforcement actions occur all along the supply chain and they involve numerous stakeholders and jurisdictions.

What information is available?

- Compliance and Enforcement Policy
- Administrative Monetary Penalties (AMPs)
- Publication of enforcement data
  - Suspensions and cancellations
  - Notification of charges laid
  - Prosecution bulletins
  - Questions and answers
  - Quarterly reports of non-compliant and disposed food products
  - Quarterly reports of refused shipments
  - Quarterly reports of Administrative Monetary Penalties
  - Cancelled organic certifications
  - Suspended and cancelled accreditation of certification bodies
- Operational compliance and enforcement approach (*Health of Animals Regulations, Part XII – Transport of Animals*)

The CFIA began posting information about its compliance and enforcement activities in March 2011. Each quarterly posting will reflect the data collected during the previous quarter.

Enforcement tools

CFIA compliance and enforcement activities can occur:

- within the countries of Canada's trading partners,
- at or near the Canadian border,
- domestically in food, animal and plant product processing facilities,
- at points of distribution and retail sale, or
- at food service locations.

Regulated parties are responsible for complying with all acts and regulations that apply to them, including those administered and enforced by the CFIA.

When it comes to enforcement, the CFIA takes a risk-based approach to compliance management. When the CFIA identifies non-compliance with the legislation it administers and enforces, it has a number of tools it can use to respond.

The CFIA clearly identifies likely consequences for the regulated parties, and applies predictable, consistent enforcement. Regulated parties can expect that the CFIA will take any non-compliance seriously and will deal with it in a professional manner.

Applying one or more of the tools, the CFIA can do the following:

- refuse to let shipments into Canada if they do not have the documentation needed to track them and do not meet regulatory requirements.
- issue notices of violation for non-compliance with plant health and animal health regulatory requirements (notices may contain a warning or penalty)
- suspend or cancel licences, registrations or permits for federally registered establishments
- recommend to the Public Prosecution Service of Canada that violators be prosecuted, depending on the severity of the violation or the escalation of enforcement actions
- seize and detain shipments and products if there is a need to

control the movement of certain products, for reasons such as health, safety and quality

- suspend or cancel organic certifications issued under the Canada Organic Regime

Outbreak sickens dozens; no cause found; investigation closed

As reported by Coral Beach on April 15, 2021

The FDA has concluded its investigation of an outbreak of Salmonella Miami with a one-word public statement: closed.

A source for the pathogen, which has sickened at least 64 people, remains unknown, according to the Food and Drug Administration. In its weekly outbreak update, the agency ended the investigation with as little fanfare as it began it. The FDA's initial announcement was a one-line entry on its weekly outbreak update table.

As of yesterday, the Centers for Disease Control and Prevention had not posted any information about the outbreak. The CDC did not respond to a request for comment on April 14, the day of the FDA announcement.

In its original outbreak notification on Jan. 13, the FDA's weekly CORE investigation table listed 48 patients in the outbreak. The FDA still has not revealed what states are involved in the outbreak.

The CORE investigation table indicates that traceback was undertaken and that samples were collected and tested. No further information on the investigation is provided. The outbreak table refers the public to general information pages on Salmonella and the FDA investigation process.

When the outbreak was added to the weekly CORE update an FDA spokesperson told **Food Safety News** the agency just didn't have enough information on the traceback efforts to release any details.

"If an entry in this column reads 'Not Yet Identified' we don't have enough evidence to determine what specific food is making people sick at this stage of the investigation. The investigations on the table will be at many different stages, and when we have narrowed the traceback investigation enough to identify a likely food as the suspect vehicle, we will report that information publicly," according to a spokesperson for the CORE program who responded to previous questions from **Food Safety News**.

"After looking for signals that could be an early warning of an outbreak and then determining that an FDA-regulated food item is likely causing an outbreak, the outbreak is transferred to a response team. At that time, the information regarding that outbreak will post on the CORE Investigation Table."

The investigation has been closed without any additional information being posted.

About Salmonella infections
Food contaminated with Salmonella bacteria does not usually look, smell, or taste spoiled. Anyone can become sick with a Salmonella infection. Infants, children, seniors, and people with weakened immune systems are at higher risk of serious illness because their immune systems are fragile, according to the CDC.

Anyone who has developed symptoms of Salmonella infection should seek medical attention. Sick people should tell their doctors about any possible exposure to Salmonella bacteria because special tests are necessary to diagnose salmonellosis. Salmonella infection symptoms can mimic other illnesses, frequently leading to misdiagnosis.

Symptoms of Salmonella infection can include diarrhea, abdominal cramps, and fever within 12 to 72 hours after eating contaminated food. Otherwise, healthy adults are usually sick for four to seven days. In some cases, however, diarrhea may be so severe that patients require hospitalization.

Older adults, children, pregnant women, and people with weakened immune systems, such as cancer patients, are more likely to develop severe illness and serious, sometimes life-threatening conditions.

Some people get infected without getting sick or showing any symptoms. However, they may still spread the infections to others.

OFPA Board Spotlights

Recently fellow board members of the OFPA were spotlighted in different ways. Please review below.

"Remote audits have come to stay"

Recently, Nikos Manouselis, Co-founder and CEO of Agroknow, the food safety intelligence company that has been serving agriculture and food clients globally for more than a decade conducted an interview with Paul Damaren, SVP, Food Safety & Supply Chain, Perry Johnson Registrars Food Safety Inc.

Let me introduce you to a fellow Canadian and former Culinary Ambassador to Russia. This is Paul Damaren, Senior Vice President Food Safety & Supply Chain at Perry Johnson Registrars Food Safety, Inc. (PJRFSI).

Paul is working for an organization that is quite different to the

tech companies and food manufacturers that have been represented in my digital transformation interviews so far. PJRFSI is a global Certification Body who serves clients through effective risk management strategies and implementation of global standards. They help organizations achieve continuous improvement within their supplier management, product approval management and internal compliance processes.

When I reached out to Paul, what I was seeking to understand was the impact of COVID-19 to the certification industry. He is not only a professional with more than 17 years in the food and certification industry but was also a Chef and consultant for 20 years. Working in major hotel chains and restaurants, so he knows very well the food service business demands.

Paul, many people think that COVID-19 accelerates the digital transformation of the food supply chain. We see that our clients ask for more digital tools that will help them perform tasks remotely – even from home. What is your opinion?

I believe the statement above to be 100% correct.

Since the start of the global pandemic in late February 2020, the effects of the COVID-19 virus (aka Coronavirus) has been felt around the world. COVID has fast-tracked the transformation of our industry!

There have been and continue to be several countries around the world including USA & Canada that have issued mandates pertaining to permitted gatherings of people, and official "STAY AT HOME" orders to flatten the global curve of the virus. Unemployment rates are at an all-time high, resulting in a shortage of workers globally and thus creating new challenges to the already globalized food industry and the supply of food as well.

COVID-19 has necessitated Certification Bodies, including Perry Johnson Registrars Food Safety Inc., to accelerate the use of digital and remote auditing techniques, and the use of virtual technology has transformed the way we do business today, i.e. "digital transformation". COVID-19 has absolutely accelerated the digital transformation of the food supply chain.

Which changes do you see coming in the market?

Our business as we knew it has changed dramatically in the last 11 months. Virtual workforces and remote auditing are now the "new normal" and countless organizations have large numbers of employees with Regional, National & Global locations or based remotely, often spanning geographic borders. Some organizations have moved to a fully remote environment "forever". Given the current global climate, we see that virtual audits are becoming more effective and efficient when technology such as phone and video conferencing, webcams, smartphones and other smart technology are utilized.

Remote audits have come to stay; their advantages are unquestionable over the traditional methods, although there are still some barriers to overcome. Traditional audits, even when they have been well planned and executed, may cause a certain amount of inconvenience and disruptions to the organization being audited. In addition, business managers are increasingly finding these e-audits very attractive, since reductions in costs and resources are undeniable using virtual methodologies.

What do you hear from your clients?

Our clients are subjected to strict global government guidelines and practices, ensuring every product they make meets and even exceeds industry standards. Our clients today are faced with increasing consumer demands and expectations, significant regulatory control, intense competitive pressure as well as an expanding need for governance, brand differentiation and risk management.

Many of our clients have contacted us indicating a variety of situations that have impacted their ability to host a successful audit including operations reduced or completely down; a "no visitor" policy and restrictions on access to certain locations while others are still accessible for audit assessment.

We are seeing peoples' preferences change rapidly. Health-conscious attitudes have always been prevalent in recent years but are more noticeable today than ever. For many clients, this has meant shifting from B2B to a direct-to-consumer model and the use of virtual services for their meetings, conferences and events. This new progression of our digital world has opened many businesses and "peoples" eyes to a new way of doing business.

People are spending more time at home, cooking their own meals and the demand for healthy fresh food that can easily be traced back to its origins is an expectation of today's consumer and buyers.

Which needs are they highlighting during this period?

Our clients are looking for us to provide more options to them to ensure they can keep their doors open and meet the needs of their customers, i.e. Certification.

I see many new trends headed our way that include customized nutrition programs, digital technology across the entire food supply chain, and an integration of common standards in the industry with Food Safety standards, e.g. Responsible Waste and the Global Food Safety Initiative (GFSI) recognized standards, such as SQFI, BRCGS, or FSSC as an example.

Due to our client's needs, our goal is providing greater transparency, cost effectiveness, improved risk

management and enhanced brand protection.

How do you respond to these needs?

I believe it is paramount that we listen to our clients and hear what is important to them to operate their business and to protect their staff and their families.

It is also critical that our clients know they can reach out to us anytime and will get a live person on the other end of the phone, not a recording. We all need to be empathetic to the challenges they must face and ensure we not only meet their needs but anticipate them and focus on them. That is truly what is important.

Over the past 11 months we have fielded countless inquiries from our clients about the policies we have put in place to protect the safety of our employees and equally important, theirs. It is paramount to continue reviewing valuable public health information from the Centers for Disease Control and Prevention and other bodies such as the World Health Organization daily to provide our clients with the most up to date information on the market.

Let's face it, the landscape of our industry is a constantly changing, dynamic place where trends can shift, and client expectations change in an instant. From recalls to regulation, navigating that landscape can be a challenge for organizations of all scopes and sizes. To truly respond to your client's needs, step a mile in their shoe. Understand where their risk is and provide solutions that make sense for their business.

What is your company doing differently to serve your clients better?

There have been countless actions that we as a company have taken to serve our clients during the pandemic. First and foremost, to serve and focus on our clients we needed to stabilize our global business and operations and our employees so that we could continue to support our clients.

On top of the basics like staying home if you are sick, sanitizing everything from our cars, our laptops, our hands and mobile devices to developing clear corporate policies for all employees, we are doing everything in our power to ensure our employees are sticking to the strict preventive policies and procedures that we have put in place to protect our clients.

We have also required that all auditors who work for PJRFSI are self-monitoring for COVID-19 symptoms daily and self-isolate if they believe they have come into contact with anyone that may have been infected or presumed to have a case of COVID-19.

In February 2020, we began to take the necessary steps to mitigate the risks of auditing during the pandemic while keeping our customers' certificates current by cautious onsite audits and use of virtual technology. Many of the global audit schemes put restrictions in place around onsite auditing that reduced our ability as a Certification Body to conduct onsite assessments.

Most scheme owners in the industry followed the guidance as laid out in the Informative Document (ID) 3 entitled: "*Management of Extraordinary Event or Circumstances Affecting ABs, CABs, and Certified Organizations.*" IAF ID 3:2011 Informative Document for Management of Extraordinary Events or Circumstances Affecting ABs, CABs and Certified Organizations. This allowed companies to extend their Food Safety certificates by six months. So, because of this, we had to adapt as a company and ensure our global audit force was prepared and trained to work in the "new normal".

In response to the new operational needs created by the risk of pandemics, we created the "Returning to Work Game Plan". The full "Game Plan" includes a brief overview document, a comprehensive guide document, as well as a Virtual Self-Assessment Tool. These documents and tools are meant to provide practical recommendations for operational changes, based on guidelines from the Centers for Disease Control and Prevention and World Health Organization, that could be tailored by organizations to address various scenarios they may face when returning to work.

Also, between April – December 2020, our goal at Perry Johnson Registrars Food Safety, Inc. was to provide our customers with complimentary training and thought leadership from experts in the industry, and to support our customers while helping to mitigate the risk in their business. We conducted 27 complimentary webinars during a 6 month timeline, to over 6,000 attendees and partnered with industry experts to accomplish this.

In your opinion, what is the digital technology that will be more extensively adopted by the market during the next 12 months?

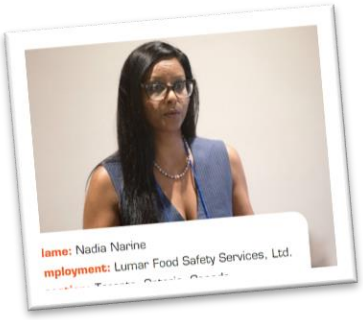
Companies are quickly shifting to adopt digital strategies to compete in today's marketplace. Companies like Zoom, Microsoft (with Teams), Houseparty, or Cisco (with Webex) have thrived during the pandemic. As a Certification Body, it is critical that we consider all digital options, food technology and various infrastructures that are present in today's market. We need to adopt or grow these options to meet the needs of our clients and that of their supply chain.

We are only at the beginning, we all need to start building our plans for recovery post COVID-19, which includes a pivot to our business models, our operations, our supplier policies (maybe even off-boarding strategies), our technologies and re-mobilizing our work force.

This is a time of monumental change and now is the time for us all to execute and lay out our plans to give not only our clients or suppliers but our stakeholders and employees confidence that we are in control.

Exploring Opportunities and Treasures from the Deep

From dreams of being a medical doctor to becoming the owner and CEO of her own food safety services company, Nadia Narine rarely shies away from a new opportunity. It's that sense of adventure,



and a bit of fearlessness, that drive her as she strives to ensure the industry's training, certification and auditing programs continue through increasing challenges.

Although born in Manitoba, Canada where her parents had originally immigrated to from Trinidad and Tobago, at an early age her family moved to Toronto, Ontario to avoid the harsh winters. As a teenager in high school she found a passion in the field of science. With this interest in science, she thought becoming a doctor might fulfill that desire to help people and provide a lifelong career.

Nadia began her studies at the University of Toronto. A few semesters in, she realized family medicine might not be the right fit. But deeply enjoying her science courses she shifted focus to microbiology with interest in pharmaceutical and food sciences.

"My mother worked for Cadbury for 40 years and they had an internship program that I took part in, for three summers while on school break, not realizing this would be the industry I would work in," recalled Nadia. "The pharmacy path didn't really work as planned but the opportunities on the food side took off for me.

Nadia completed her studies in Industrial Microbiology at Centennial College, followed by York University. She began her career and found a wealth of opportunity within the bakery business at Canada Bread - Maple Leaf Foods Ltd. The experience allowed her to work in many roles and locations throughout North America.

"I literally grew up there, climbing the ladder and experienced a lot of professional growth and personal growth during that time," Nadia said.

While starting her career she also started her family. Now she and her husband Sean are parents to two boys.

Those boys, Lucas and Marcus, are the inspiration behind the name of the company she created just six years ago.

"After Canada Bread I ventured into the world of third-party auditing and certification at SA! Global and SGS," Nadia recalls. "I was learning a lot and loved what I was doing but was also seeking a better work-life balance: •

With a little bit of encouragement and support from her family and colleagues, Nadia took a bold leap and created Lumar Food Safety Services, Ltd., taking a portion of both her sons' names to brand the business.

Harold Barnum Industry Award

The OFPA would like to formally congratulate fellow board member, Andrew Clark on receiving the Harold Barnum Industry Award which recognizes an active IAFP Member for dedicated and exceptional service to IAFP, the public, and the food industry.

As the recipient of the 2020 IAFP Harold Barnum Industry Aware, Andrew was honored for his dedication and exceptional service to IAFP, the public, and the food industry. Andrew is the Senior Director Quality Assurance at Loblaw Companies Limited in Toronto where he heads a dedicated team responsible for managing product safety and quality and supporting a diverse global supplier network. Throughout his career, Andrew has worked in a variety of roles associated with food safety and quality management in the manufacturing, food service, and retail sectors and in food law enforcement for the UK Food Standards Agency.

While attending his first IAFP Annual Meeting in 2010 in Anaheim, California, Andrew saw a posting for a Director of Auditing at Maple Leaf Foods (Toronto), and joined its team in early 2011. In 2016, he moved to Subway Restaurants where he managed the team responsible for the Global Supplier Approval Program before joining Loblaws in 2019.

A 10-year IAFP Member, Andrew is also a member of several Professional Development Groups. He is the current Vice Chair for the Audit and Inspection PDG and has presented in several symposia since 2010.

Andrew is A Fellow of the Institute of Food Science and Technology and has participated for many years on several GFSI technical working groups and has been very active participating on the BRC Global Standards Advisory Board, receiving the BRCGS CEO's Aware in 2019 for his work supporting small businesses and those in developing regions in raising food safety compliance standards. Andrew has completed his bachelor's degree in Food Technology at the University of Wales Institute (Cardiff) and his master's degree in Food Safety Management from the University of Central Lancashire. **Congratulations Andrew!**

https://www.foodprotection.org/annualmeeting/iafp-awards/

BRCGS | Food Safety

It's Benchmarking Season!
New Public Consultation Open - BRC Global Standards

GFSI is delighted to announce the opening of another stakeholder consultation, one of the final stages in the benchmarking process against the GFSI Benchmarking Requirements Version 2020.1. BRC Global Standards (BRCGS) submitted four of their Global Standards for re-assessment: Global Standard for Food Safety issue 8, Global Standard for Packaging Materials issue 6, Global Standard for Agents & Brokers issue 2 and Global Standard for Storage and Distribution issue 4. BRCGS has

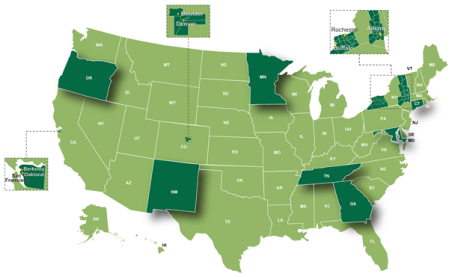
maintained GFSI recognition for many years, extending their scope of recognition as they developed new certification programmes.

"BRCGS is proud of our longstanding relationship with GFSI, and excited to reach this step in the process and to ensure our Global Standards continue to meet benchmarking requirements. Benchmarking by GFSI and accreditation to ISO17065 are key elements of maintaining integrity in our programmes, valued globally by specifiers as part of supply chain assurance and enterprise risk mitigation; and help to ensure BRCGS certification continues to be sought after. Being part of the GFSI-recognised family of Standards is, and will continue to be, part of the BRCGS mark of excellence", said John Kukoly, Director of Certification Programs, BRCGS.

Why a Stakeholder Consultation
This important step of the GFSI Benchmarking Process ensures its transparency and robustness, inviting interested stakeholders to review and comment on the assessment carried out by GFSI and their independent Benchmark Leaders.

How to Get Involved
To participate, simply download the consultation documents here, and email your questions and comments to gfsibm@theconsumergoodsforum.com by 23rd April 2021.

CHECK THIS OUT!



CDC has a pretty nifty new tool, FoodNet Fast population survey, which shows the percent of people who reported eating a specific food in the past 7 days (e.g., 34.6% people ate celery in the past week). It's based on 2018-19 data. This kind of info is used during outbreak investigations, to see if ill people consumed a certain food more than you'd expect.

New Era of Smarter Food Safety

FDA's TechTalk Podcast Focuses on Technology and Food Safety

April 16, 2021

On Thursday, April 29, 2021, FDA will launch the first in a new quarterly podcast series that focuses on the development and use of new technologies to strengthen the ability of FDA, regulated industry, and others to accelerate prevention, speed outbreak response, and more swiftly adapt to crises that could affect the food supply.

The first podcast, "Tech-enabled Traceability in the New Era of Smarter Food Safety," will feature technology and food industry experts in the Institute of Food Technologists (IFT), GS1, and FMI: The Food Industry Association.

For More Information - New Era of Smarter Food Safety TechTalk Podcast

Outbreak Investigations & Safety Advisories

Center for Food Safety and Applied Nutrition

The following is an update from FDA

Investigation of Acute Non-viral Hepatitis Illnesses – "Real Water" Brand Alkaline Water (March 2021)

April 16, 2021

The FDA, along with the CDC and the Southern Nevada Health District, is investigating a number of reports of acute non-viral hepatitis in the state of Nevada associated with "Real Water" brand alkaline water.

The FDA has become aware that "Real Water" brand alkaline water is still being offered for sale through online retailers.

The agency is working to locate any remaining products to ensure they are no longer available to consumers. The FDA will continue to monitor this situation closely and follow up with retailers as we become aware of recalled products being offered for sale.

In addition, the FDA is conducting an audit to gauge the effectiveness of the voluntary recall initiated by Real Water, Inc. As of March 31, 2021, the audit has found that, prior to contact by FDA, a number of distributors had not received notification directly from the firm about the recall. Additionally, as of March 31 2021, Real Water Inc. is still promoting the product via social media despite issuing a recall announcement.

Guarding Against the Next National Supply Chain Crisis: Lessons Learned from COVID-19for America's Critical Infrastructure and Essential Workforce

A recent report developed by the Critical Infrastructure Supply Chain Coalition (of which UFPA is a member) outlines

recommendations pertaining to essential workers, and other supply chain opportunities and needs that became evident due to COVID.

Routine activities theory and food fraud victimization

B Lee, R Fenoff, Dr. John Spink - Security Journal, 2021

Food fraud is a widespread problem that involves the act of defrauding consumers for economic gain. Food fraud incidents pose a considerable threat to the economic stability of agri-food industry as well as the health and welfare of consumers. With the increasing use of online grocery shopping, the Internet has

facilitated deceptive and fraudulent practices by criminals. Using a sample of U.S. consumers, the current study explores the applicability of routine activities theory in the context of food fraud. The findings show that online routine activities, online target suitability, exposure to food ads, and perceived risk are significantly linked to food fraud victimization. Our study demonstrates that the routine activities theory is a useful framework to understand the vulnerabilities associated with food fraud. Implications for research and policy are discussed.

Are consumers setting themselves up to get defrauded? (Yes.) Can the food industry modify food fraud prevention strategies help consumers not get cheated? Yes). Dr. John Spink collaborated with two Criminology professor colleagues to explore "routine activities" theory to strengthen "the role consumers play in food fraud prevention."

Reference: Byung LEE, Roy FENOFF, Roy; & John SPINK. Routine activities theory and food fraud victimization. Security Journal (2021). Published Online: March 9, 2021. URL: https://link-springer-com.proxy1.cl.msu.edu/article/10.1057/s41284-021-00287-1

The most significant insight for a food fraud prevention strategy is that: Consumers are overconfident in their ability to detect and avoid fraud. "One's perception of food fraud risks does not necessarily indicate that an individual is competent in identifying and using effective strategies to prevent victimization." Most of the food fraud prevention focus is by the food industry reducing their supply chain fraud opportunity. This research expands the understanding of how the consumers get deceived. By understanding specifically how consumers are deceived, the countermeasures and control systems can be modified for maximum impact.

Investigations of Foodborne Illness Outbreaks

The following is a list of outbreak investigations being managed by FDA's CORE Response Teams. The investigations are in a variety of stages, meaning that some outbreaks have limited information, and others may be near completion.

A public health advisory will be issued for outbreak investigations that have resulted in specific, actionable steps for consumers to

take to protect themselves. Please direct your attention to those pages for the most up to date information on the investigation and for consumer protection information.

Note: Not all recalls, and alerts result in an outbreak of foodborne illness. Check recent Food Recalls and Safety Alerts.

Outbreak investigations that do not result in specific, actionable steps for consumers may or may not conclusively identify a source or reveal any contributing factors. If a source and/or contributing factors are identified that could inform future prevention, FDA commits to providing a summary of those findings.

Food Recall Warnings - High Risk

The CFIA classifies recalls based on the level of health risk associated with the food product being recalled. For information on recalls and recall levels, please consult our Food Recall Fact Sheet.

The following is a list of the most recent public advisories for high-risk food recalls. The CFIA issues public advisories for all food products where consumption of the food could cause serious health consequences.

A record of all recalls (Class 1, 2 and 3), including those that did not trigger a public warning is also available.

Date Posted	Reference #	Pathogen	Product(s) Linked to Illnesses (if any)	Total Case Count	Investigation Status	Outbreak Status	Recall Initiated	Traceback Initiated	On-Site Inspection Initiated	Sample Collection & Analysis Initiated
3/17/2021	18	Acute Non-viral Hepatitis	Alkaline Bottled Water	See Advisory	Active	Ongoing See Advisory	See Advisory		✔	✔
2/17/2021	15	*Listeria monocytogenes*	Hispanic-style fresh and soft cheese	See Outbreak Advisory	Active	Ongoing See Outbreak Advisory	See Outbreak Advisory		✔	✔
2/17/2021	14	*E. coli* O157:H7	Not Yet Identified	See CDC Investigation Notice	Closed	Ended See CDC Investigation Notice		✔		
1/13/2021	10	*Salmonella* Miami	Not Identified	64	Closed	Ended See Advice		✔		✔

Food Recall Warnings and Allergy Alerts

Posted	Recall	Class	Distribution
2021-04-13	Food Recall Warning (Allergen) - Thai Elephant brand Black Tiger Shrimp recalled due to undeclared sulphites	Class 2	Ontario, Quebec
1	Food Recall Warning (Allergen) - Hayter's Farm brand Onion & Parsley Turkey Burgers recalled due to undeclared wheat	Class 1	Ontario
2021-04-09	Updated Food Recall Warning (Allergen) - Co-op Gold Pure brand Almond Butter – Crunchy Roasted recalled due to undeclared cashew and hazelnut	Class 1	Alberta, British Columbia, Manitoba, Northwest Territories, Nunavut, Possibly National, Saskatchewan, Yukon
2021-04-09	Updated Food Recall Warning - Consumption of Double Happiness brand "Dried Almond" may cause cyanide poisoning	Class 1	Alberta, British Columbia, Manitoba, Possibly National
2021-04-07	Notification - Leadbetters brand Cowboy Burgers recalled due to possible spoilage	Class 3	Ontario
2021-04-06	Updated Food Recall Warning - Consumption of Chen-Chen brand Dried Apricot North Almond Seeds may cause cyanide poisoning	Class 1	British Columbia, Possibly National
2021-04-02	Food Recall Warning (Allergen) - Co-op Gold Pure brand Almond Butter – Raw – Unroasted recalled due to undeclared cashew and hazelnut and Co-op Gold Pure brand Cashew Butter recalled due to undeclared almond and hazelnut	Class 2	Alberta, British Columbia, Manitoba, Northwest Territories, Nunavut, Saskatchewan, Yukon

U.S. FOOD & DRUG ADMINISTRATION

Food Recall Warnings and Allergy Alerts			
Posted	**Recall**	**Class**	**Distribution**
2021-04-02	Updated Food Recall Warning - Consumption of certain apricot kernel products may cause cyanide poisoning	Class 1	Ontario
2021-04-01	Updated Food Recall Warning - Consumption of certain apricot kernel products may cause cyanide poisoning	Class 1	British Columbia

The list below provides information gathered from press releases and other public notices about certain recalls of FDA-regulated products. Not all recalls have press releases or are posted on this page. See Additional information about recalls for a more complete listing.

Date	Brand Name(s)	Product Description	Product Type	Recall Reason Description	Company Name	Terminated Recall
04/14/2021	Trader Joe's	Restaurant Style White Corn Tortilla Chips	Food & Beverages, Allergens, Snack Food Item	Product may contain undeclared milk	Snak King Corporation	
04/13/2021	Torn & Glasser	Dark chocolate espresso beans	Food & Beverages	Undeclared walnuts	Torn & Glasser	
04/12/2021	Meow Mix®	Meow Mix® Original Choice Dry Cat Food	Animal & Veterinary, Pet Food	Potential Salmonella Contamination	J. M. Smucker Co.	
04/10/2021	Hostess	SnoBalls	Food & Beverages	Undeclared coconut	Hostess Brands LLC	
04/09/2021	NS NY Distributor Inc	Premium Orgazen 7000 and Ginseng Power 5000 capsules	Drugs	Undeclared Sildenafil and/or Tadalafil	NS NY Distributor Inc	
04/07/2021	Glutenull	Goji Berries and Chocolate Cookies	Food & Beverages	Product may contain undeclared milk	Glutenull Bakery	
04/06/2021	PremierZEN Extreme 3000, PremierZEN Plus 5000, & Triple	Dietary Supplement for male sexual enhancement	Drugs	Undeclared Tadalafil	Yolo Studio	

Date	Brand Name(s)	Product Description	Product Type	Recall Reason Description	Company Name	Terminated Recall
	SupremeZEN Plus 3500					
04/05/2021	IMPERIAL Gold 2000, PremierZEN Extreme 3000, BURRO en PRIMAVERA 60000 & IMPERIAL Platinum 2000	Dietary Supplement for male sexual enhancement	Drugs	Undeclared Sildenafil and/or Tadalafil	QMART	
04/03/2021	APS Isomorph, iForce Nutrition Mass Gainz	Dietary supplements	Food & Beverages	Due to undeclared milk, wheat, soy, egg allergens	Hi-Tech Pharmaceuticals, Inc.	
04/02/2021	A-S Medication Solutions, LLC	Acetaminophen Extra Strength 500 mg Tablets, 100 ct. bottles contained in Health Essentials Kits distributed by Humana	Drugs	Products contain an incomplete prescription drug label	A-S Medication Solutions, LLC	

April 14, 2021

As reported in the **Retail Food Safety Forum**

The Future Is Now: AI Takes Journey from Supply Chain to Today's Restaurant Kitchens

By James Gunn-Wilkerson

The pandemic has forced restaurants to reimagine their business and ushered in a new frontier in intelligent kitchens.

Futurist Ross Dawson has said that AI and automation will shape the future of work, and it also promises to transform our lives beyond the office. According to the World Economic Forum, when AI, which provides the ability to "enable devices to learn, reason and process information like humans," is combined with Internet of Things (IoT) devices and systems, it creates AIoT. This super duo has the potential to power smart homes, smart cities, smart industries and even our smartwatches and fitness trackers, a market estimated by Gartner to be worth $87 billion by 2023. More importantly, this "interconnectedness" will change the way we interact with our devices as well as the way we will live and work in the future.

In the restaurant industry, we're already seeing glimpses of this interconnectedness take shape, and in the past year, we've experienced major technological advancements that have transformed every facet of the way food establishments work. Reflecting on those advancements, I want to take a moment to share three areas of AI impact that are bubbling up in the restaurant sector in 2021.

1: AI-powered Intelligent Kitchens

From ghost kitchens to traditional kitchens, the "back of the house" continues to be a prime target for AI and automation. While great progress has been made, in many ways it seems like we've only scratched the surface when it comes to how far AI can take today's restaurants. But every now and then, we hear examples of AI powering the future of our industry. For example, Nala Robotics, Inc. will be opening what it calls "the world's first state-of-the-art intelligent restaurant" in Naperville, Illinois this year. The company says the AI-based robotic kitchen "can create dishes from any cuisine around the world, using authentic recipes from celebrated chefs". A press release from Nala Robotics states that its flagship restaurant is taking "the first step in the food service industry with AI-powered service, addressing many of the issues affecting restaurant owners during COVID-19," and it will "provide consumers an endless variety of cuisine without potential contamination from human contact." This is the new frontier in intelligent kitchens, and it couldn't have come at a better time, with the pandemic forcing restaurants to reimagine the way they do business.

2: AI-Driven Labor Shifts.

You can't talk about AI in the restaurant industry without also having a conversation about the implications for the modern workforce. With AI in restaurant kitchens and beyond, the impact on the labor force is undeniable. By 2024, Gartner predicts "that these technologies will replace almost 69% of the manager's workload." But that's not entirely a bad thing. Instead of manually filling out forms and updating records, managers can turn to AI to automate these and other tedious tasks. "By using AI…they can spend less time managing transactions and can invest more time on learning, performance management and goal setting," Gartner adds.Managers can also use the extra time to focus more effort on the customer and employee experience. And indeed they should: In a recent Deloitte report, 60% of guests surveyed indicated that a positive experience would influence them to dine at a restaurant more frequently.

Looking at the impact of AI on labor at all levels, from the CEO to the entry-level wage earner, the shift, at its best, will be a transition to more meaningful—and less mundane—work. The evolution of humanity has taken us to the point we're now at now, with food production and delivery processes becoming increasingly automated. This has been an evolution generations in the making. In an ideal world, everyone at every level of the organization should benefit from this new wave of technology. For example, automation can and should be used to open the door to new training and new opportunities for low-wage earners to learn new skills that elevate career paths, increase income and improve quality of life.

3: AI and Global Supply Chain Transformation

From the farm all the way to the table, AI is now poised to transform the global supply chain. From my perspective, the biggest impact will be around driving sustainability efforts. Restaurant and grocery brands are already beginning to leverage AI to forecast their food supply needs based on customer demand,

leading to less over-ordering and less food waste to support sustainability initiatives. One company in this space, FourKites, is creating what it calls "the digital supply chain of the future." Using real-time visibility and machine learning, FourKites powers and optimizes global supply chains, making them "automated, interconnected and collaborative—spanning transportation, warehouses, stores, trucks and more."

In addition to predictive planning, more and more brands will start to use AI to create incident risk management models to identify trends and risks in the supply chain to determine whether bad or recalled products are originating from a specific supplier, distributor, or due to an environmental variable.With all of these changes, the need for comprehensive data standards will multiply as suppliers and distributors around the world work together to bring us produce and packaged food from all corners of the globe. Data standards will be critical to traceability and the exchange of critical tracking events and key data elements, and advances in data standards will power the meta-data needed to provide better insight for food quality and regulatory compliance, crisis management, and recalls—at scale.

Research firm Forrester states that, in the end, the greatest impact resulting from an investment in robotics and other technologies that automate operational tasks is improved customer experience (CX). "Most companies believe that investment in AI, automation, and robotics for engagement will decrease operational costs. While this is true, our research shows that the revenue upside from delivering better CX could deliver a greater impact on the bottom line over time," Forrester states.

As a business engaged in digitizing and transforming supply chain operations, our team couldn't agree with Forrester more. But we believe it will take striking the right balance between technology and the human touch to not only drive stronger CX, but to also create a world in which AI is implemented for the greater good—a world in which people, processes, business and technology all win.

Emerging Opportunities for Machine Learning in Food Safety: Potential and Pitfalls

Determining the right tools and the right data to use them on *April 15, 2021*

Xiangyu Deng, Ph.D., Shuhao Cao, Ph.D., and Abigail L. Horn, Ph.D.

We see more and more that large volumes of data associated with and throughout the farm-to-table continuum can be used to inform food safety and public health.[1] From pathogen genomes to consumer reviews, innovative applications that use machine leaning to analyze these data are on the horizon. This article is meant to accompany a recent scholarly review on the topic[2] by providing a primer and synopsis for the general food safety audience.

Whether machine learning, or the more encompassing subject of artificial intelligence, may turn into a major boon or a disappointing bust for food safety is already a much-discussed topic, including here at *Food Safety Magazine*. In our effort to review emerging applications of machine learning in food safety, we tried to examine both potentials and pitfalls, hoping to contribute to constructive and cautious practices of these still-new approaches in food safety analytics.

Primer on Machine Learning

Although machine learning has been around for a couple of decades, it has recently become a very hot topic. Buzzwords such as "big data" and "artificial intelligence" (AI) have appeared in the media since the mid-'90s. Computer vision, natural language processing, and data science, fields predicated on machine-learning techniques, have been growing explosively. Some even argue that the

proliferation of machine learning is the "third industrial revolution." For years, perhaps without realizing the transformative power of machine learning, people have been enjoying its conveniences, ranging from smartphone apps to autonomous vehicles to QR Code recognition to translation of complex sentences into different languages in real time. In sum, data-driven, machine-learning-powered decision making has gradually become common practice.

The old adage "Practice makes perfect" caps an important aspect of machine learning: A machine-learning-based computer program is "trained" by data (practice) to better fulfill its purpose. For model-based machine learning, this training procedure often involves letting the model "see" a continuous stream of training data, so that, with iterations and iterations, the model can perform the same task better and better. For example, if a computer program were to be designed to classify cats from dogs in images, then a data set consisting of images previously labeled as dog or cat must be given to the model to train it. The math behind the curtain will try to minimize the difference between the model's predictions of the labels and the true labels, often called the "ground truth" data. Meanwhile, certain validation measures are taken to ensure a trained model can generalize its predicting power to unseen data—so that it is not overfit to the training data.

In many ways, the success of a machine-learning model depends on the quality of data, following the computer science proverb "Garbage in, garbage out." Choosing the "right" model to fit the data is important: A simple model may not capture certain important patterns, while a complicated model may pick up too much noise from the data and lose generalizability (i.e., overfit). Choosing the right model for the application is also important. For communication and translation of work with key stakeholders and decision makers, an interpretable machine-learning model that returns features and prediction results that are comprehensible to humans is often preferred over more complex "black box" models.

Machine Learning Using Genomic Data

A major category of machine-learning applications in food safety center on whole-genome sequencing (WGS) data. First, established surveillance and monitoring infrastructure, such as PulseNet, GenomeTrakr, and the National Antimicrobial Resistance Monitoring System (NARMS), have been producing copious amounts of pathogen genomes, creating scalability challenges for data analytics and a constant need to cope with new data. Machine learning is presumably positioned to address these challenges and needs. Second, certain pathogen characteristics of food safety significance are mechanistically complicated and not well understood, for example, the association between particular pathogens and their sources. Machine learning may help uncover hidden patterns from WGS data that are less identifiable with traditional methods. Finally, machine learning holds promise to solve difficult problems in the biomedical sciences using genomic data. A recent prominent case is a stunning breakthrough in predicting protein folding through deep learning of amino acid sequences.

Given the relatively small genomes of foodborne pathogens, one may assume that machine-learning analyses of these genomes would be mere iteration or extension of established methodology. However, domain-specific opportunities and challenges continue to arise.

In antimicrobial resistance (AMR) monitoring, AMR prediction using WGS data is considered an accurate and efficient alternative to or enhancement of phenotypic antimicrobial susceptibility testing (AST). Typically, a curated panel of AMR genes are searched in the genome of interest to yield susceptible or resistant classifications. This rule-based approach requires a priori knowledge of genetic determinants of AMR and thus cannot identify AMR caused by novel or uncatalogued genes. Machine-learning models that are agnostic of known AMR determinants and unbiased by any AMR gene curation have naturally been explored for genomic AST. In a cutting-edge study,[3] Nguyen et al. broke down over 5,000 *Salmonella* genomes into small sequences (k-mers) and used them as features fed into a machine-learning model to predict the minimum inhibitory concentration (MIC) of 15 drugs. The MIC prediction accuracy of the model met the U.S. Food and Drug Administration (FDA) standards for automated systems with all 15 drugs measured by major errors (false-resistant results) and 7 of the 15 measured by very major errors (false-susceptible results).

In zoonotic source attribution, that is, predicting livestock sources of food pathogens, machine learning leveraging WGS and associated labels ("metadata") has shown great potential. Zhang et al.[4] applied a machine-learning classifier to predict food-animal sources of *Salmonella* Typhimurium. Trained by more than 1,200 genomes of known sources in the U.S., the classifier correctly attributed isolates from seven of eight major outbreaks linked to food animals in the U.S. from 1994 to 2013.

While promising, such applications are still nascent and premature for deployment. First, some machine-learning models are inherently difficult to interpret, and common performance metrics are inadequate for determining whether a model is ready to be deployed in practice. Domain expertise and commonsense knowledge are critical for evaluating machine-learning solutions. The "rule" is: One shall not "listen (only) to data."[5] Second, in clinical and public health settings, standardized methods are often desired. However, the design of training sets, the choice of models, and the strategy for validation all pose difficulties for standardization. Finally, as mentioned above, training sets greatly affect the outcome of the analysis, and "garbage in, garbage out" is a common pitfall. In the case of machine learning with food safety genomic data, inflated source attribution accuracy can be derived from oversampling of closely related Salmonella genomes of the same source in the training set.[4,6]

Machine Learning Using Novel Data Streams

Another major area of application of machine-learning techniques in food safety involves the use of novel data streams (NDS)[7]—emerging sources of data that are created continuously and passively by individuals going about their daily lives, also called "data in the wild"—which include text (social media), trade, and transactional data. Because these data are generated on the consumer level, their value has been found mainly in surveillance of food safety events at the last mile of the food supply chain.

Text data, in the form of Twitter posts,[8-12] reviews on Yelp&[13-15] and Amazon,[16] news, or blogs,[17] have been monitored to capture near-real-time food safety violations or illness reports linked to restaurants or retailers that are not reported through the official channels (e.g., filing reports with the local health department) and would otherwise go unrecognized.

The commonly applied machine learning task here is to train a classifier to identify a set of keywords, such as "illness," "food poisoning," and "throw up," that are associated with food safety-related incidents at an associated restaurant or retailer.

Over the past decade, a number of foodborne illness surveillance systems built on machine-learning classifiers have moved out of the lab into systems piloted by some of the country's largest city health departments. While the original concept behind these systems was to identify outbreaks of foodborne illness, in practice, there have been no notable successes in identifying outbreaks, either active or historical, that traditional surveillance techniques have missed. The main value in application has instead been found in identifying food safety violations at restaurants, whether or not an outbreak has occurred. The most successful approach to date does not use social media data but combines Google search and location history to identify restaurants violating health codes.[18] Pioneered by a team including Google researchers and the Chicago and Las Vegas health departments, this system uses machine learning to identify a set of Google search terms predictive of foodborne illness and then uses Google location history to link the users placing those search terms to restaurants they have frequented.

Machine-learning models based on these "wild" data sources have critical biases that cannot be overlooked, following the "garbage in, garbage out" principle. User attribution of foodborne illness to a specific food item or consumption location is notoriously difficult to confirm given the incubation periods of foodborne pathogens, multiplicity of consumed foods, and inaccuracies of recall.[19] Users of social media including Twitter and Yelp represent a convenience sample of a younger, wealthier, predominantly urban population with specific race/ethnicity biases and are not a representative sample of society; additionally, platform penetration is known to vary by geographic region.[20-22] Research has shown that consumer stereotypes around ethnic foods drive the implication of such restaurants on social media, and likewise in food safety surveillance systems based on social media data.[20,23] The reader is referred to a recent article in *Food Safety Magazine* for a more in-depth explanation of some of these biases.

Transactional data—electronic records generated at point of sale—are another form of NDS that hold much promise for foodborne disease outbreak investigations, although still with very few applications in practice. Transactional data provide an objective history of consumption records that can be used to generate hypotheses at the early stages of an investigation about the causative food vehicle, as well as the causative location of contamination in retail or a restaurant. While there have been numerous successful examples using *individual* consumer checkout data collected from known case patients together with standard case-control statistical methods, machine learning finds application with *aggregated* data, which exist in the form of aggregated store-based or spatially aggregated retail sales, loyalty card data, and credit card transaction records. To protect privacy, sensitive information like usernames and addresses are anonymized before sharing with researchers. A notable example involves work by Kaufman et al.[24,25] utilizing aggregated sales data of hundreds of individual products sold in retail to identify the causative food in large-scale spatially distributed outbreaks. A pattern-matching approach was developed that identifies as likely culprits the food items with sales patterns more closely resembling the outbreak distribution. A machine-learned clustering analysis complements the method by identifying clusters of products that are indistinguishable. The approach has been applied in practice, and with some edits and improvements was demonstrated by the Norwegian Institute of Public Health to help identify the source of an enterohemorrhagic *Escherichia coli* outbreak.[26]

Trade data, traditionally recorded or logged for company operations or statistical analysis, have also found innovative application in food safety surveillance and risk assessment alongside machine-learning techniques. Examples of such data sources include supply chain or transshipment logistics records, federal and international trade statistics, and production and consumption data. In one application, import-export data accessed from a public data source, ImportGenius, were combined with FDA import inspection records to train a system to predict food import firms likely to fail FDA site inspections.[27] The trade data add value because the trained model selects features relating not only to producers and suppliers (information contained in the import FDA inspection data alone) but also to supply chain network structural relationships that are most predictive of risk (information particular to the trade structure), which in combination improves identification of firms likely to fail FDA site inspections by greater than 40 percent from existing approaches. Trade data have also been used to develop spatially resolved models of the aggregate structure of national food supply chains in Germany[28] and the U.S.[29] with machine learning used to train models to ensure

that the properties of the estimated networks follow known structural properties of observed empirical food-flow networks.

Pitfalls and Limitations of Machine Learning in Novel Data Stream Data Analysis

It should be clear from the survey of examples provided in this article that although machine-learning models have been shown to supplement and/or complement existing data and analysis techniques to address food safety challenges, they are not a replacement for investigative work. Beyond the issue of choosing the right data to train a model, a researcher must also choose the most appropriate methodology to approach each food safety challenge, and machine learning is not a fit for every situation. Principled mathematical or predictive mechanistic modeling techniques, which introduce a structure or logic into a problem approach, are a better fit for certain tasks, especially when limited training data are available. Examples include agent-based modeling to predict likely hazards in a production facility, or network-theoretic modeling to identify the probabilistically most likely source of an outbreak and identify risks in the international food supply chain. Oftentimes, the most practical solution requires not sophisticated modeling but a sophisticated IT system for capturing and securely sharing data in real time. In this case, a blockchain solution or a system built around software accessible to food safety risk analyzers, such as the effective supply chain data input, mapping, and visualization tools developed and deployed to assist traceback during one of the largest foodborne outbreaks in Germany, the 2011 enterohemorrhagic E. coli outbreak linked to contaminated sprouts, may work.[30,31]

But we should close on a note of possibility. Many promising opportunities exist for food safety by extending machine-learning applications from related fields or sources of data. Aggregated transactional data from loyalty cards,[32] credit card transactions,[33] restaurant sales, and online grocery shopping[34] or delivery,[35] most of which have been used in nutrition applications, could find application in foodborne outbreak source attribution analysis to identify the culprit food item or market/restaurant where contaminated products were sold. Mobility records logged by smartphones have been applied extensively in tracing the spread of infectious diseases, including coronavirus disease 2019, but so far have found only one application in the foodborne disease space.[18] Foodborne illness or hazard surveillance systems built on social media, search query, or company message board data could be extended to other areas of food safety, including product recalls, allergens, or food safety regulations. Further promising opportunities exist for combining data sources, such as the combination of genomic and supply chain data in source attribution.[36] So long as careful attention is consistently placed in identifying sources of bias and pitfalls, machine learning together with big data promise to usher food safety into what Frank Yannis, the FDA deputy commissioner for food policy and response, calls a "new era of smarter food safety."

Salmonella and Campylobacter Bacteria Still Resistant to Antibiotics Used in Humans and Animals

As posted, April 9, 2021, Food Safety Magazine

A good amount of *Salmonella* and *Campylobacter* bacteria is still resistant to antibiotics that are commonly used in humans and animals, according to a report released recently by the European Center for Disease Prevention and Control (ECDC) and the European Food Safety Authority (EFSA).

High proportions of resistance to ciprofloxacin, an antibiotic usually used to treat several types of infections, were reported in a specific *Salmonella* serotype known as *S.* Kentucky, in humans. There have also been increasing reports of *S.* Enteritidis resistant to nalidixic acid and/or ciprofloxacin, in several countries. Reflecting the spread of particularly resistant strains, there have been increasing occurrences of fluoroquinolone and/or quinolone resistance in these types of *Salmonella*.

Resistance to ciprofloxacin is so common in *Campylobacter* now that the antimicrobial has limited use in treatment of *Campylobacter* infections in humans.

The report also had a few positive findings: From 2015–2019, a decline in resistance to ampicillin and tetracyclines has been observed in *Salmonella* isolates from humans in 8 and 11 member states, respectively.

Also, a decreasing trend was noted in the prevalence of extended-spectrum β-lactamase (ESBL)-producing *Escherichia coli* in samples from food-producing animals from 13 member states between 2015 and 2019. This is an important finding, as particular strains of ESBL-producing *E. coli* are responsible for serious infections in humans.

Combined resistance to two important antimicrobials—fluoroquinolones and third-generation cephalospories in *Salmonella*, and fluoroquinolones and macrolides in *Campylobacter*—remain low. These antimicrobials are usually used to treat serious infections from *Salmonella* and *Campylobacter* in humans.

The report also found that the rate of *E. coli* bacteria in samples from food-producing animals that respond to all antimicrobials tested also increased. This was observed in nine member states from 2014–2019.

The report was based on antimicrobial resistance monitoring data, which were collected by member states as part of their EU regulatory obligations. The data were jointly analyzed by EFSA and ECDC,

with the assistance of external contractors.

GFSI Hosts First Steering Committee Meeting as CGF Coalition of Action on Food Safety

Posted April 9, 2021, mygfsi.com

Following the success of the first-ever virtual GFSI Conference on 23rd-25th March, the Global Food Safety Initiative (GFSI) hosted its first Steering Committee meeting as a Coalition of Action (CoA). The new Steering Committee and its 18 members **were announced** on the 23rd March, just days ahead of this first meeting on 26th March. The 18 newly selected steering committee members had been subject to a rigorous selection process, a process that was published on the GFSI website. The GFSI Steering Committee includes new members of the Coalition all of whom are representatives of CGF member companies.

Once the formalities and introductions were completed, as part of the inaugural meeting of the group, members were updated about GFSI's new lease of life as a Coalition of Action under the stewardship of The Consumer Goods Forum (CGF). It was reinforced that the move to the CoA signals a strengthening of overall governance in line with the wider CGF. Additionally, the new governance has increased GFSI's visibility amongst the CGF membership, especially with CEOs, which has resulted in more companies signing up to the CoA than were previously part of the old GFSI Board.

GFSI Director Erica Sheward emphasized how the Coalition's Race to the Top Framework – a collection of initiatives to help drive continuous improvement in the food safety system – underpin the actions of the Coalition. This reimagining of the GFSI strategy – based on extensive consultation – is supported by a Coalition Charter approved by the CGF Board of Directors. The current Charter asks members to work on the harmonization and improvement of food safety systems and to help raise the food safety bar globally. It was noted that there was a need to ensure that GFSI stakeholders are familiar with the objectives of the Charter as they relate to Members' obligations. The group also discussed in more depth the role of GFSI within the CGF and the history behind this shift.

Members then moved on to discussing the new **Governance Rules** and the process for making decisions. Erica highlighted the governance changes, which included the review of the Local Group strategy, the decision-making framework and the introduction of the Science and Technology Advisory Group (STAG), which is comprised of academics who will provide direct scientific input into the work of the GFSI.

As the current cap of the Steering Committee is 29 members, the Steering Committee was reminded of the application process for new Steering Committee members. New candidates will be considered on a quarterly basis, first by the GFSI team and then voted on by the Steering Committee members. Finally, Erica informed the members that the Co-Chairs and Vice Co-Chairs need to be appointed as specified in the Governance Rules. Once the onboarding process has finished, members will be requested to submit their applications to join the various GFSI sub-committees: Technical, Public-Private Partnerships (PPPs), Capability Building and Governance.

The next phase of the meeting saw representatives from Certification Program Owners (CPOs) join the discussion.

Steering Committee members were updated on the role of the CPOs and the ways of working with GFSI. Much of the discussion then focused on how the parties can build greater trust through more transparent and effective engagements, something both parties are keen to enhance.

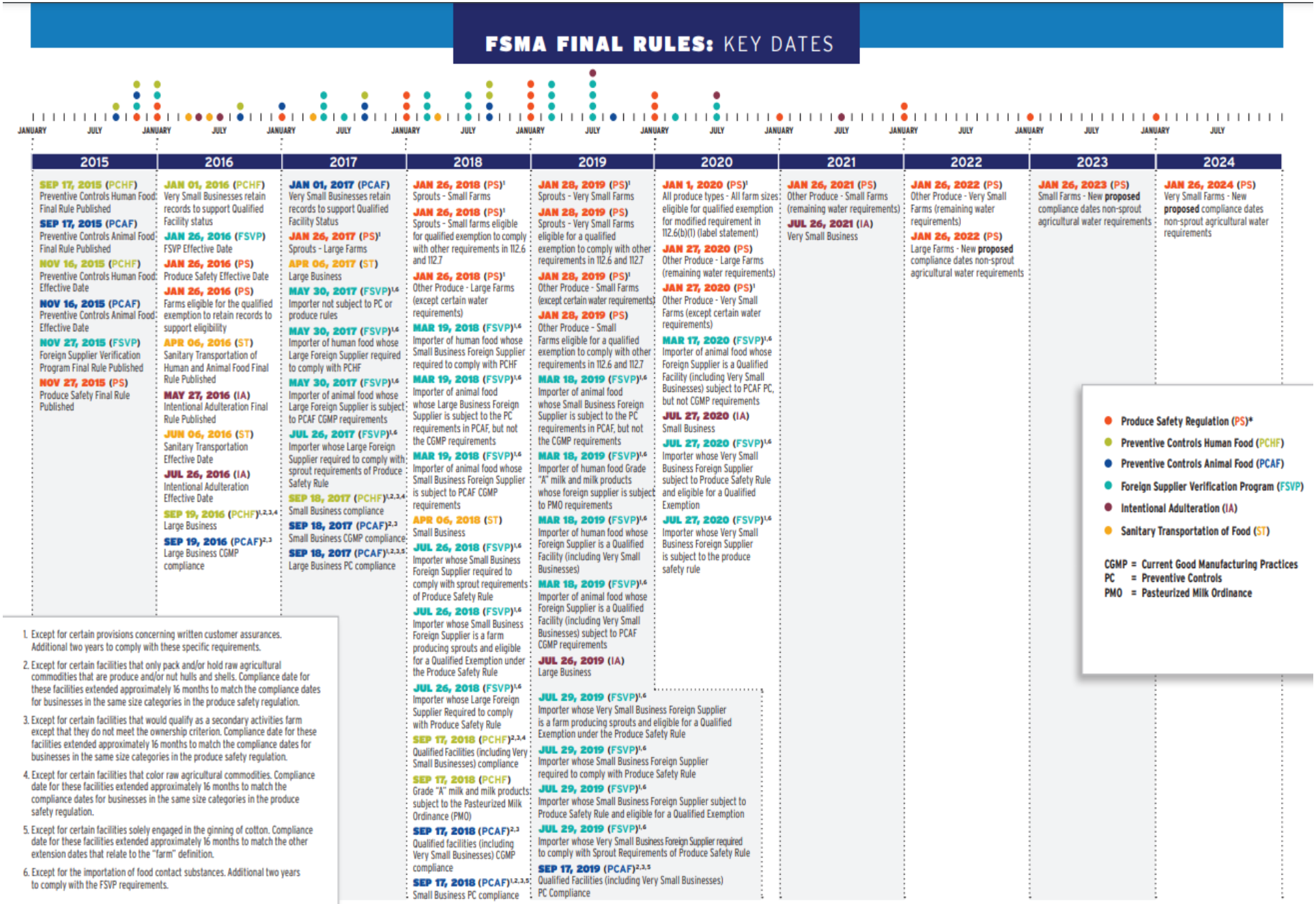
Then, representatives from the Certification Bodies (CBs) were welcomed to the meeting. Here, the group discussed what was needed to improve their working relationships and the potential creation of dedicated forum to facilitate the inclusion of a CB

perspective in the creation of the benchmarking requirements. The attendees also discussed how to collaborate on defining auditor competency and audit quality, harmonization of standards and the use of remote assessment in audits. This discussion included how to implement steps to improve trust in remote audits.

The Steering Committee Members reflected that both the CPOs and CBs presented their shared views on the ways of working moving forward, highlighting a high level of pre-alignment and preparation before this meeting.

The GFSI Steering Committee will now take the input from the CPOs and CBs and see how best to continue to develop more robust processes that promote ongoing engagement and collaboration.

Following on a series of on-boarding meetings, the next meeting of the Steering Committee will be in Q2 2021.


FSMA FINAL RULES: KEY DATES
JANUARY JULY JANUARY JULY JANUARY JULY JANUARY JULY JANUARY JULY JANUARY JULY JANUARY JULY JANUARY JULY JANUARY JULY JANUARY JULY
2015
SEP 17, 2015 (PCHF) Preventive Controls Human Food: Final Rule Published
SEP 17, 2015 (PCAF) Preventive Controls Animal Food: Final Rule Published
NOV 16, 2015 (PCHF) Preventive Controls Human Food: Effective Date
NOV 16, 2015 (PCAF) Preventive Controls Animal Food: Effective Date
NOV 27, 2015 (FSVP) Foreign Supplier Verification Program Final Rule Published
NOV 27, 2015 (PS) Produce Safety Final Rule Published
2016
JAN 01, 2016 (PCHF) Very Small Businesses retain records to support Qualified Facility status
JAN 26, 2016 (FSVP) FSVP Effective Date
JAN 26, 2016 (PS) Produce Safety Effective Date
JAN 26, 2016 (PS) Farms eligible for the qualified exemption to retain records to support eligibility
APR 06, 2016 (ST) Sanitary Transportation of Human and Animal Food Final Rule Published
MAY 27, 2016 (IA) Intentional Adulteration Final Rule Published
JUN 06, 2016 (ST) Sanitary Transportation Effective Date
JUL 26, 2016 (IA) Intentional Adulteration Effective Date
SEP 19, 2016 (PCHF)[1,2,3,4] Large Business
SEP 19, 2016 (PCAF)[2,3] Large Business CGMP compliance
2017
JAN 01, 2017 (PCAF) Very Small Businesses retain records to support Qualified Facility Status
JAN 26, 2017 (PS)[1] Sprouts - Large Farms
APR 06, 2017 (ST) Large Business
MAY 30, 2017 (FSVP)[1,6] Importer not subject to PC or produce rules
MAY 30, 2017 (FSVP)[1,6] Importer of human food whose Large Foreign Supplier required to comply with PCHF
MAY 30, 2017 (FSVP)[1,6] Importer of animal food whose Large Foreign Supplier is subject to PCAF CGMP requirements
JUL 26, 2017 (FSVP)[1,6] Importer whose Large Foreign Supplier required to comply with sprout requirements of Produce Safety Rule
SEP 18, 2017 (PCHF)[1,2,3,4] Small Business compliance
SEP 18, 2017 (PCAF)[2,3] Small Business CGMP compliance
SEP 18, 2017 (PCAF)[1,2,3,5] Large Business PC compliance
2018
JAN 26, 2018 (PS)[1] Sprouts - Small Farms
JAN 26, 2018 (PS)[1] Sprouts - Small farms eligible for qualified exemption to comply with other requirements in 112.6 and 112.7
JAN 26, 2018 (PS)[1] Other Produce - Large Farms (except certain water requirements)
MAR 19, 2018 (FSVP)[1,6] Importer of human food whose Small Business Foreign Supplier required to comply with PCHF
MAR 19, 2018 (FSVP)[1,6] Importer of animal food whose Large Business Foreign Supplier is subject to the PC requirements in PCAF, but not the CGMP requirements
MAR 19, 2018 (FSVP)[1,6] Importer of animal food whose Small Business Foreign Supplier is subject to PCAF CGMP requirements
APR 06, 2018 (ST) Small Business
JUL 26, 2018 (FSVP)[1,6] Importer whose Small Business Foreign Supplier required to comply with sprout requirements of Produce Safety Rule
JUL 26, 2018 (FSVP)[1,6] Importer whose Small Business Foreign Supplier is a farm producing sprouts and eligible for a Qualified Exemption under the Produce Safety Rule
JUL 26, 2018 (FSVP)[1,6] Importer whose Large Foreign Supplier Required to comply with Produce Safety Rule
SEP 17, 2018 (PCHF)[2,3,4] Qualified Facilities (including Very Small Businesses) compliance
SEP 17, 2018 (PCHF) Grade "A" milk and milk products subject to the Pasteurized Milk Ordinance (PMO)
SEP 17, 2018 (PCAF)[2,3] Qualified facilities (including Very Small Businesses) CGMP compliance
SEP 17, 2018 (PCAF)[1,2,3,5] Small Business PC compliance
2019
JAN 28, 2019 (PS)[1] Sprouts - Very Small Farms
JAN 28, 2019 (PS) Sprouts - Very Small Farms eligible for a qualified exemption to comply with other requirements in 112.6 and 112.7
JAN 28, 2019 (PS)[1] Other Produce - Small Farms (except certain water requirements)
JAN 28, 2019 (PS) Other Produce - Small Farms eligible for a qualified exemption to comply with other requirements in 112.6 and 112.7
MAR 18, 2019 (FSVP)[1,6] Importer of animal food whose Small Business Foreign Supplier is subject to the PC requirements in PCAF, but not the CGMP requirements
MAR 18, 2019 (FSVP)[1,6] Importer of human food Grade "A" milk and milk products whose foreign supplier is subject to PMO requirements
MAR 18, 2019 (FSVP)[1,6] Importer of human food whose Foreign Supplier is a Qualified Facility (including Very Small Businesses)
MAR 18, 2019 (FSVP)[1,6] Importer of animal food whose Foreign Supplier is a Qualified Facility (including Very Small Businesses) subject to PCAF CGMP requirements
JUL 26, 2019 (IA) Large Business
JUL 29, 2019 (FSVP)[1,6] Importer whose Very Small Business Foreign Supplier is a farm producing sprouts and eligible for a Qualified Exemption under the Produce Safety Rule
JUL 29, 2019 (FSVP)[1,6] Importer whose Small Business Foreign Supplier required to comply with Produce Safety Rule
JUL 29, 2019 (FSVP)[1,6] Importer whose Small Business Foreign Supplier subject to Produce Safety Rule and eligible for a Qualified Exemption
JUL 29, 2019 (FSVP)[1,6] Importer whose Very Small Business Foreign Supplier required to comply with Sprout Requirements of Produce Safety Rule
SEP 17, 2019 (PCAF)[2,3,5] Qualified Facilities (including Very Small Businesses) PC Compliance
2020
JAN 1, 2020 (PS)[1] All produce types - All farm sizes eligible for qualified exemption for modified requirement in 112.6(b)(1) (label statement)
JAN 27, 2020 (PS) Other Produce - Large Farms (remaining water requirements)
JAN 27, 2020 (PS)[1] Other Produce - Very Small Farms (except certain water requirements)
MAR 17, 2020 (FSVP)[1,6] Importer of animal food whose Foreign Supplier is a Qualified Facility (including Very Small Businesses) subject to PCAF PC, but not CGMP requirements
JUL 27, 2020 (IA) Small Business
JUL 27, 2020 (FSVP)[1,6] Importer whose Very Small Business Foreign Supplier subject to Produce Safety Rule and eligible for a Qualified Exemption
JUL 27, 2020 (FSVP)[1,6] Importer whose Very Small Business Foreign Supplier is subject to the produce safety rule
2021
JAN 26, 2021 (PS) Other Produce - Small Farms (remaining water requirements)
JUL 26, 2021 (IA) Very Small Business
2022
JAN 26, 2022 (PS) Other Produce - Very Small Farms (remaining water requirements)
JAN 26, 2022 (PS) Large Farms - New proposed compliance dates non-sprout agricultural water requirements
2023
JAN 26, 2023 (PS) Small Farms - New proposed compliance dates non-sprout agricultural water requirements
2024
JAN 26, 2024 (PS) Very Small Farms - New proposed compliance dates non-sprout agricultural water requirements
Produce Safety Regulation (PS)*
Preventive Controls Human Food (PCHF)
Preventive Controls Animal Food (PCAF)
Foreign Supplier Verification Program (FSVP)
Intentional Adulteration (IA)
Sanitary Transportation of Food (ST)
CGMP = Current Good Manufacturing Practices
PC = Preventive Controls
PMO = Pasteurized Milk Ordinance
1. Except for certain provisions concerning written customer assurances. Additional two years to comply with these specific requirements.
2. Except for certain facilities that only pack and/or hold raw agricultural commodities that are produce and/or nut hulls and shells. Compliance date for these facilities extended approximately 16 months to match the compliance dates for businesses in the same size categories in the produce safety regulation.
3. Except for certain facilities that would qualify as a secondary activities farm except that they do not meet the ownership criterion. Compliance date for these facilities extended approximately 16 months to match the compliance dates for businesses in the same size categories in the produce safety regulation.
4. Except for certain facilities that color raw agricultural commodities. Compliance date for these facilities extended approximately 16 months to match the compliance dates for businesses in the same size categories in the produce safety regulation.
5. Except for certain facilities solely engaged in the ginning of cotton. Compliance date for these facilities extended approximately 16 months to match the other extension dates that relate to the "farm" definition.
6. Except for the importation of food contact substances. Additional two years to comply with the FSVP requirements.

2021 OFPA Spring Virtual Technical Meeting & Clive Kingsbury Poster Competition Overview of Event

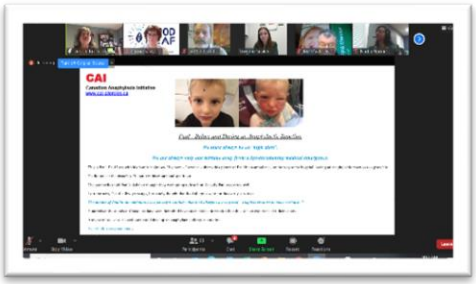
April 15, 2021, 8:00 am - 3:30 pm, Virtual

THANK YOU TO OUR SPONSORS

AGENDA	
Morning Moderator: Gwynne Sitsker, OFPA Treasurer	
8:30 – 9:00 am	Open for Registration
9:00 - 9:15 am	Opening remarks ➢ Welcome to the event and virtual morning door prize winner announcements! - Gwynne Sitsker, OFPA Treasurer ➢ OFPA update from our 2021 president – Joe Myatt
9:15 - 10:00 am	Keynote Speaker – Debbie Bruce, Director of the Canadian Anaphylaxis Initiative and Michael Abbott, Food Allergen Manager, Health Canada Topic – Let's Talk Food Allergies – You Will Never Have A More Loyal Customer
10:00 - 10:15 am	Diamond Sponsor Presentation – 3M
10:15-10:45 am	Morning Social Networking on Kumospace ➢ Network and socialize with colleagues ➢ Check out our sponsors and participate in the "Food Safety Scavenger Hunt" for a chance to win prizes!!
10:45 - 11:30 am	Speaker – Angela O'Donovan – BRCGS Head of Standards Topic - Two In-Demand Labels You Should Be Leveraging to Grow Your Market

11:30 – 11:50 am	Clive Kingsbury Virtual Video Competition – Top 3 finalist announcements and videos presented by Diversey
11:50 – 12:30 pm	Lunch Break
Afternoon Moderator: Nadia Narine, OFPA Vice President	
12:30 - 12:45 pm	Welcome back & afternoon door prize winner announcements! OFPA Financial Update – Gwynne Sitsker, OFPA Treasurer
12:45 – 12:55 pm	Platinum Sponsor Presentation – Sanitation Pros
12:55 – 1:45 pm	Panel Discussion – COVID-19: Food Safety Impact – A Year In Review – Hosted by Jorge Arroyo -3M Canada featuring: ➢ Julia Mitobe, Director, Lead QA Tim Horton's NA, Restaurant Brands ➢ Moses Akingbade, Sr. Director QM & Industrial Engineering, Versacold ➢ Doug Alexander, Vice President of Technical Services, Belmont Food Group
1:45 - 2:15 pm	Afternoon Social Networking on Kumospace ➢ Network and socialize with colleagues ➢ Last chance to complete the Food Safety Scavenger Hunt!
2:15 - 3:00 pm	Speaker – Jay Holmes, National Manager for Food Labelling, Canadian Food Inspection Agency Topic – CFIA Regulatory & Policy Initiatives Affecting Food Labelling
3:00 - 3:45 pm	Speaker – Frank Massong, Regulatory & Government Affairs Specialist, Purity-IQ Inc Thomas Spengler, Director Market Management – Food Feed Beverage (FFB) Market Topic - Cannabis, Food and Natural Product Quality Assurance Underpinned by Innovative Science
3:45 - 4:00 pm	Closing Remarks ➢ Clive Kingsbury Video competition winner – Aaron Aboud ➢ OFPA Kumospace Food Safety Scavenger Hunt winner announcements – Nadia Narine, OFPA Vice President ➢ Sneak Peek to 2021 OFPA Events – Nadia Narine, OFPA Vice President

KEYNOTE SPEAKER



Let's Talk Food Allergies – You Will Never Have A More Loyal Customer.
Food trends, fads, formulations, moves, mergers, new CEOs, point of manufacture and food safety measures all impact your food allergic customer. For 3 million Canadians and 32 million Americans – 7.5% of the North American population (and growing) - these things matter. This isn't just about the allergic customer. Friends, family, colleagues, classmates, teammates, neighbors…schools, workplaces, Chefs, restaurants, entertainment venues, hotels, banquet halls, airlines and community centers are all trying to keep those with allergies safe and included. This is a very loyal, profitable and, sadly, growing market segment. Let's look at how we can work together to maximize choice and clearly label.

Debbie Bruce – Director of the Canadian Anaphylaxis Initiative.
Debbie Bruce is a founding member and continues as Director of the Canadian Anaphylaxis Initiative (CAI). She has dedicated the past 30+ years collaborating with community partners, businesses, all levels of government and advocacy groups to draw attention to anaphylaxis issues and to improve the everyday safety, inclusion and quality of life for the 3 million Canadians living with Anaphylaxis. The CAI worked with MP Dean Allison on Anaphylaxis Motion-230 that was unanimously passed in the House of Commons May, 2013 stating … "That in the opinion of the House, anaphylaxis is a serious concern for an increasing number of Canadians and the government should take the appropriate measures necessary to ensure these Canadians are able to maintain a high quality of life." Debbie's expertise draws on a strong background in the packaged goods industry - on the production, purchasing and marketing sides. As Product Manager for SugarTwin artificial sweetener (a trend setter as the first product labelled sugar free), Debbie worked with the medical community, Health Canada to ensure government compliance and supply chain contributors.

Michael Abbott – Food Allergen Program Manager, Health Canada.
Michael is the Section Head of the Food Allergy and Food Intolerance Assessment Section in the Bureau of Chemical Safety in Health Canada's Food Directorate. He has worked at Health Canada for twenty-eight years and in the area of food allergens and gluten for twenty-six years. Michael has a background in immunoassay and other analytical techniques for the detection of undeclared allergens. In his current position he works on labelling regulations, policies and guidelines related to labelling of food allergens and gluten sources on prepackaged foods in Canada. He was part of a team that developed enhanced labelling regulations for food allergens, gluten sources and added sulphites, which came into force in 2012. Michael works closely with the Canadian Food Inspection Agency and is responsible for conducting health risk assessments when there are incidents of undeclared or improperly declared food allergens or gluten sources in prepackaged foods sold in Canada.

Two In-Demand Labels You Should Be Leveraging to Grow Your Market

Reach new customers with popular new BRCGS Free-Form certifications. With consumers now more health and environmentally conscious than ever, the natural foods market is seeing a banner year and global Gluten-Free and Plant-Based markets are expected to continue their impressive growth through 2027.

Discover how Gluten-Free and Plant-Based certifications can boost your brand, differentiate your products in the growing market, instill consumer confidence in integrity of your products.

SPEAKER

Angela O'Donovan – BRCGS Head of Standards

Angela joined BRCGS in the UK in January 2021 as Head of Standards. She will be responsible for ensuring we deliver the standards our specifiers and customers want, that they are aligned to the needs of the market and are consistent in product design and their approach to brand protection.

Angela has 28 years' experience in safety, quality, legality, ethical and sustainability, in both food and consumer goods industries. She has worked in high risk manufacturing, retail (Woolworths & Mothercare) an Agents & Broker (Kallofoods where she held a European role as Director of Quality) and more recently as Director of Technical Services for Bidfood where she maintained their Storage and Distribution certification amongst other things.

SPEAKER

CFIA Regulatory Update – What you need to know about food labelling!

The presentation was focused on the CFIA's forthcoming Regulatory and Policy Initiatives that affect Food labelling. **Jay Holmes – National Manager for Food Labelling in the Consumer Production and Market Fairness Division – CFIA.**

Jay Holmes is the National Manager for food labelling in the Consumer Production and Market Fairness Division. The division has responsibility for all mandatory and voluntary food labelling requirements, along with food standards and grades.

The purpose of this presentation was to provide an update on key ongoing priorities related to food labelling and

composition. The Food Product Innovation FPI Regulations (Formerly recognized as the Food Labelling Modernization FLM Regulations) will make changes to the FDR and SFCR. The FPI was reviewed and assessed in 2020 to change if from mandatory labelling changes and refocused on how to sustain economic growth through innovation, streamlining and removing duplicate or outdated requirements. The expected dates for final publication is fall 2021. An industry plea for more predictable timelines has resulted in proposed joint policy statements which include: Fixed compliance dates every two years, with a minimum of two years for coming into effect; and an interdepartmental labelling coordination process. This predictable schedule will allow companies to plan more efficiently, using up remaining labelling inventory while ensuring they meet compliance dates.

A new guidance report planned for Spring 2021 will give industry more information in their understanding and application of regulatory requirements pertaining to simulated meat and poultry products, as well as simulated plant-based products. For example, these guidelines will distinguish between simulated meat which as specific nutritional and labeling rules (e.g. "contains no meat" on label) and plant-based protein foods that are not marketed as meat substitutes without these rules.

The incorporation by reference (IBR) of compositional food standards administered by CFIA and HC will enable efficient and timely updates to hundreds of commodities currently listed under FDA standards (ex. Alcoholic beverages, spices, flour, etc.), helping to enable product innovation, and facilitate interprovincial trade and importation of foods.

Health Canada is responsible for establishing the new health and safety labelling requirements, while the CFIA implements these requirements, and ensures compliance and enforcement in industry. The existing 5 year transition period is scheduled to end in December 2021. However, due to the Covid-19 pandemic, the CFIA will focus on education and compliance campaigns until December 2022. Examples of these revisions include changes to the list of ingredients (legibility, sugar grouping, etc.), and nutrition facts table contents.

PANEL DISCUSSION

COVID-19: Food Safety Impact – A Year in Review

In this panel discussion, top industry leading professionals reflected on the past year and how the COVID-19 pandemic has impacted food safety.

Moderator – Jorge Arroyo – Regional Division Manager, Food Safety Division, 3M Canada

Jorge is currently responsible for leading two divisions at 3M Canada: 3M Food Safety and 3M Separation and Purification, steering the teams towards mid- and long- term growth opportunities through an entrepreneurial and customer focused mindset. Jorge is passionate about continuous improvement and helping customers advance their operations with technology and innovation. He is a certified Lean Six Sigma Black Belt and has received numerous awards and recognitions for significant contributions to key initiatives in his company, including the 3M Apex Award and the 3M VP Award.

Julia Mitobe, Director, Lead QA Tim Horton's NA, Restaurant Brands

Julia currently works for Restaurant Brands International as the Director of Quality Assurance for Tim Hortons North America. In this role, Julia leads standardization of quality programs and continuous improvement of quality and food safety practices for all suppliers and products served in our restaurants. Julia has over 25 years of experience in the food industry, with a wide range of roles in quality, food safety and regulatory compliance for several CPG companies including General Mills and PepsiCo.

Moses Akingbade, Sr. Director QM & Industrial Engineering, Versa Cold

Moses Akingbade is the Senior Director, Quality Management Systems of VersaCold Logistics Services. In this role, he leads VersaCold's organization's operating QMS, its Food Safety and Regulatory compliance, and Industrial Engineering functions. He has over 20 years of experience in research, food manufacturing, consumer goods, food retail and supply chain and logistics and holds a BSc in Applied Chemistry and Biology from Ryerson University.

Doug Alexander, Vice President of Technical Services, Belmont Food Group Div Premium Brands Holdings. Director, Agricultural Adaptation

Doug Alexander, joined Premium Brands holdings as Vice President and General Manager- Leadbetter Foods, most recently accepting the role of Vice President Technical Services, Belmont Food Group (div Premium Brands Holdings), a Canadian food company consisting of 60 leading specialty food manufacturing and differentiated food distribution businesses with operations across North America. Servicing over 22,000 customers, the company and its family of brands and businesses with more than 10,000 employees. Doug's experience running food processing operations spans over 34 years of bakery, pasta, sauces, vegetable and meat processing. Currently serving as Director on the Agricultural Adaptation Council board, Doug has also served as Chair of the Agri-Food Management Institute, Chair, Food Starter, the board of Directors of Provision Coalition as well as vice chair of Food and Beverage Ontario. Doug has diplomas in Science as well as Industrial Engineering.

Key notes from panel discussion

Q1 How has the pandemic effected food safety at your organization?

JM

- training people was a challenge.
- on the positive side, the credibility of the food safety team has become enhanced.
- the value of the food safety team has increased.
- we have seen a shift in attitude, easy acceptance of new procedures.

MA

- we had increased food safety visibility before the pandemic as were working on it so when the pandemic came, the previous focus paid our organization back; employee engagement increased and awareness was enhanced

Q2 What specific actions were implemented during COVID and are there plans afterward to relax procedures?

DA

- in general, sense of urgency to investigate.
- never normal philosophy
- ability to pivot.
- not going to loosen up.
- SARS-CoV-2 Protocols & Enhancements
- Fully upgraded PPE 95% filtration masks (no washable masks) + Eye protection, (goggles/face shields)
- Upgraded social distancing controls, occupancy limits and communication signs.
- Shifted to remote active screening (phone app with questionnaire)
- Increased welfare area partitions floor to ceiling to increase barriers in hallways, lunchrooms.
- Unidirectional personnel flow (one way walking routes)
- Employees who can work from home do so where practical.
- Breaks separation increased "tag" relief-reduced people on breaks /lunch.
- No visitors/drivers unless critical travel between facilities
- Installed "Sani-Zone "air sterilizers in washrooms/lunchrooms (uV + Ozone)
- Rapid antigen testing with province rollout at LBF
- HVAC, ventilation and air improvements I (increased fresh air intake, increased negative pressure, dead spot movements.
- Lobbying government and industry associations to drive vaccinations in hot zones encouraging employees with positive messaging on vaccines.

JM

- less clear in early days
- standard procedure implementations
- procurement challenges
- social distancing
- physical shields at cashes.
- contactless procedures
- curbside & delivery development
- shared equipment, cleaning procedures
- glove/hand sanitizing frequency, temperature monitoring of personnel
- don't let down guard.

Q3 What were the lessons learned?

MA

- crisis management team met daily or even twice per day.
- breakout "Incident team", importance of external and internal communication
- new sanitation procedures, adopted strictest public health procedures as Versa Cold.
- has locations across Canada, easier to go with the strictest public health initiatives.
- versus differing degrees; ongoing assessment of emerging hazards
- trend monitoring

- worker controls
- key vendor management
- training

JM

- training never can do enough.
- Onboarding-rethink, thoughtful application, bring employees up to speed with new techniques.
- Innovation-break through bureaucracy, new cleaning techniques etc.

DA

- Redundancy
- careful uses of memes to communicate new procedures.
- remember that workers are scared, build confidence, reassure.

SPEAKER

Cannabis, Food and Natural Product Quality Assurance Underpinned by Innovative Science

As the global demand for quality including safety in food and natural products increases, so does the need for robust testing methods to determine quality,

purity and authenticity, in support of food safety and quality management systems. Quality is often associated with specific cultivars, agricultural practices and geographic location presenting considerable challenges for sourcing these high-quality ingredients. Purity is challenging for both targeted chemical and DNA testing methods as it does not consider all possible adulterants, whether intentional or unintentional. Authenticity is challenged by closely related taxa and possible substitution with synthetic compounds. These factors underpin the inherent benefits of natural ingredients and pose a challenge for controls embedded in management systems. Magnetic resonance has been proven as a cost-effective, molecular diagnostic tool for food and natural ingredient identification and authentication, within many sectors including wine, coffee, honey, botanicals, cannabis and dairy products. This presentation will profile selected applications of magnetic resonance in food, natural products, including cannabis and hemp. The presentation will provide a broad overview of the technology, including fit-for-purpose examples of utility within industry and a deep dive into the science. The session is wrapped up with examples of industry driven standards and certification for effectively managing the quality assurance of products, including a process to ensure a consistent supply of authentic ingredients, while also the establishing a base level of protection for intellectual property.

Frank Massong, Regulatory & Government Affairs Specialist, Purity-IQ Inc.

Frank was raised on a family farm in south western Ontario where he harvested corn and later graduated from Queens University with a bachelor's degree in Biology. Frank has over 35 years of food policy and domestic and foreign regulatory affairs experience acting in a senior management capacity, with the Canadian Food Inspection Agency. He spent the past 10 years as a partner at Allergen Control Group Inc., where he fulfilled the VP of Regulatory and Technical Compliance role and subsequently to the BRC Global Standards. Today, Frank in his role at Purity-IQ Frank consults to global agencies and companies on all matters to do with food and feed, throughout the value chain and more recently as the project lead for development of the Cannabis Authenticity and Purity Standard (CAPS), owned and operated by Purity-IQ.

Thomas Spengler, Director Market Management – Food Feed Beverage (FFB) Market

Thomas holds a master's degree from Technical University Munich in food engineering and he is in charge of the Food, Feed & Beverage markets. His main focus is to support the business growth, to identify new markets and segments and translate the voice of the customers into new solutions which address their needs.

<u>Food Protection Trends- March/April 2021</u>

"Consumer Handling of Whole Turkeys: Identification of Common Mishandling Practices "
By Sloan Bennett & Jennifer J. Quinlan
An online survey of 1310 consumers noted that unsafe practices are continuing in the preparation and handling of whole turkeys; namely:

1. Not to wash raw turkeys
2. Not to stuff turkey before cooking
3. The practice of cooking the turkey overnight at low temperatures

"Overall there is a need for active consumer education and proper preparation, handling and storage of whole turkeys. "

"I Read It on Reddit: Food Safety Information-Seeking Preferences and Practices of Young Adults Online"

By Mitzchie Espedido & Ian Young

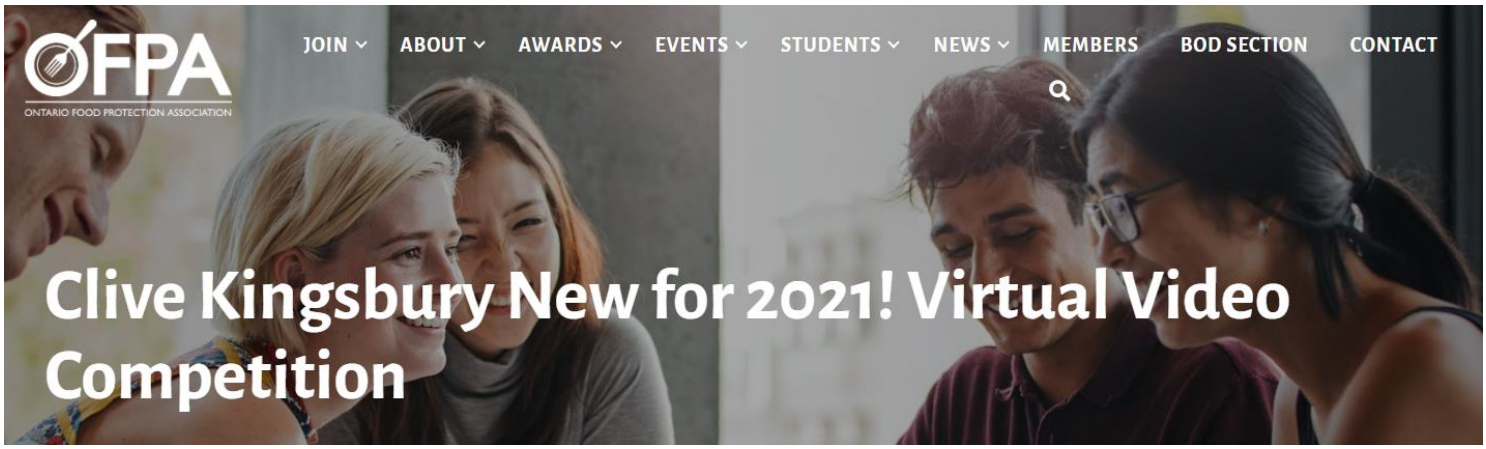
Young adults look for health information including food safety information and one of these is Reddit a popular community-based website. A study was conducted targeted to young adult Reddit users. One third of the study participants use Reddit for food safety and adoption of advice was 88%. Half of the respondents in study reported not owning a thermometer when checking the cooking doneness and relied on "visual methods" which are unreliable ". The self-reported safe food handling behaviours of respondents were largely consistent with recommended guidelines." Because Reddit is viewed as a trusted source of food safety information it behooves the industry as a whole to provide targeted food safety education and outreach efforts for Reddit and similar sites to promote food safety practices at home.

<u>Food in Canada- January/February 2021</u>

"Balance of Power"

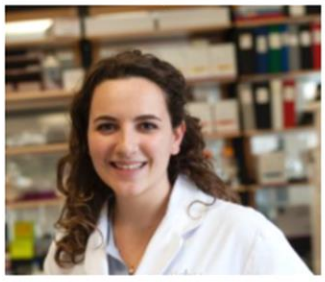
By Kathleen Sullivan

The big five grocery chains control 80% of the grocery market in Canada. There has been growing concern among food manufacturers in the imbalance of power, as these chains can delist products at any time, ignore contracts, and impose COVID fees on their suppliers. This especially impacts small food companies and farmers. Food manufacturers and associations are calling for a new grocery sector Code of Conduct as it has worked well in other countries. An internal and external dispute resolution process would be a must so that the Code has bearing. There is hope that a Code will be developed nationally in Canada. The stakes are high; because if the situation does not improve; food processing investments will be reduced, and ultimately these chain fees will be shifted onto consumers, farmers, and food manufacturers.



Congratulations to our 2021 TOP 3 Winners!

1st Place Winner



Alyssa Francavilla - University of Guelph

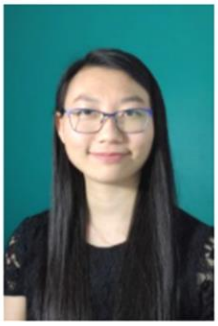
Alyssa Francavilla obtained her undergraduate degree in Food Science at the University of Guelph in 2019. She started her Food Science M.Sc. program in September 2019. Her research focuses on the extraction, purification, and quantification of anthocyanins found in coloured wheat. She is also studying anthocyanin stability in wholemeal food matrices during processing. These insights will help to utilize coloured wheat varieties to produce wheat based functional food products, with added health benefits. She is also passionate about science outreach, and runs programs centered on food science principles for high school students. Outside of school, she enjoys baking, reading, and playing with her dog!

2nd Place Winner

Shalu Gaba - Centennial College

Shalu Gaba is currently enrolled in a Food Science Technology Program at Centennial College and will graduate in April 2021. She has also done her Bachelor's in Science and ready to jump into the Food Industry Professionally. As a Food Science graduate, she thinks Food cannot go without Science. She loves to travel and meet new people and learn from their experiences.

3rd Place Winner



Grace Li - University of Guelph

Grace Li is a Masters student at the University of Guelph researching the human gut microbiome and *Listeria monocytogenes* under the supervision of Gisèle LaPointe at the Canadian Research Institute for Food Safety in the Department of Food Science. After graduating, Grace hopes to continue researching or working in food safety. In her free time, she enjoys playing piano and trying new recipes.

FINANCE CORNER – GWYNNE SITSKER

Treasurer, Finance Committee; Lead 2021 Spring Event - Joined Board of Directors Jan 2020

STATEMENT OF FINANCIAL POSITION – April 15, 2021

ONTARIO FOOD PROTECTION ASSOCIATION INC.

CURRENT ASSETS	FY 2020 ACTUAL ($)	FY 2019 ACTUAL ($)
Cash	16,610	37,320
Accounts Receivable		1,581
Prepaid Expenses	1,052	1,021
TOTAL	$17,662	$39,922

CURRENT LIABILITIES	FY 2020 ACTUAL ($)	FY 2019 ACTUAL ($)
Accounts Payable & Accrued Liabilities	1,265	2,527
Government Remittances Payable	1,061	2,236
Deferred Revenue		
TOTAL	$15,336	$35,139

"We need to continue to keep a close eye on expenses in 2021 and we need to continue to focus on increasing membership and sponsorship participation.

Given COVID19 and these unprecedented times we will continue to eliminate spending where not needed, for our events our goal will be to minimize expenses while still being able to provide our members with value from the association.

I would ask all members to share the OFPA with industry colleagues and for non- members to join and become a part of this elite group."

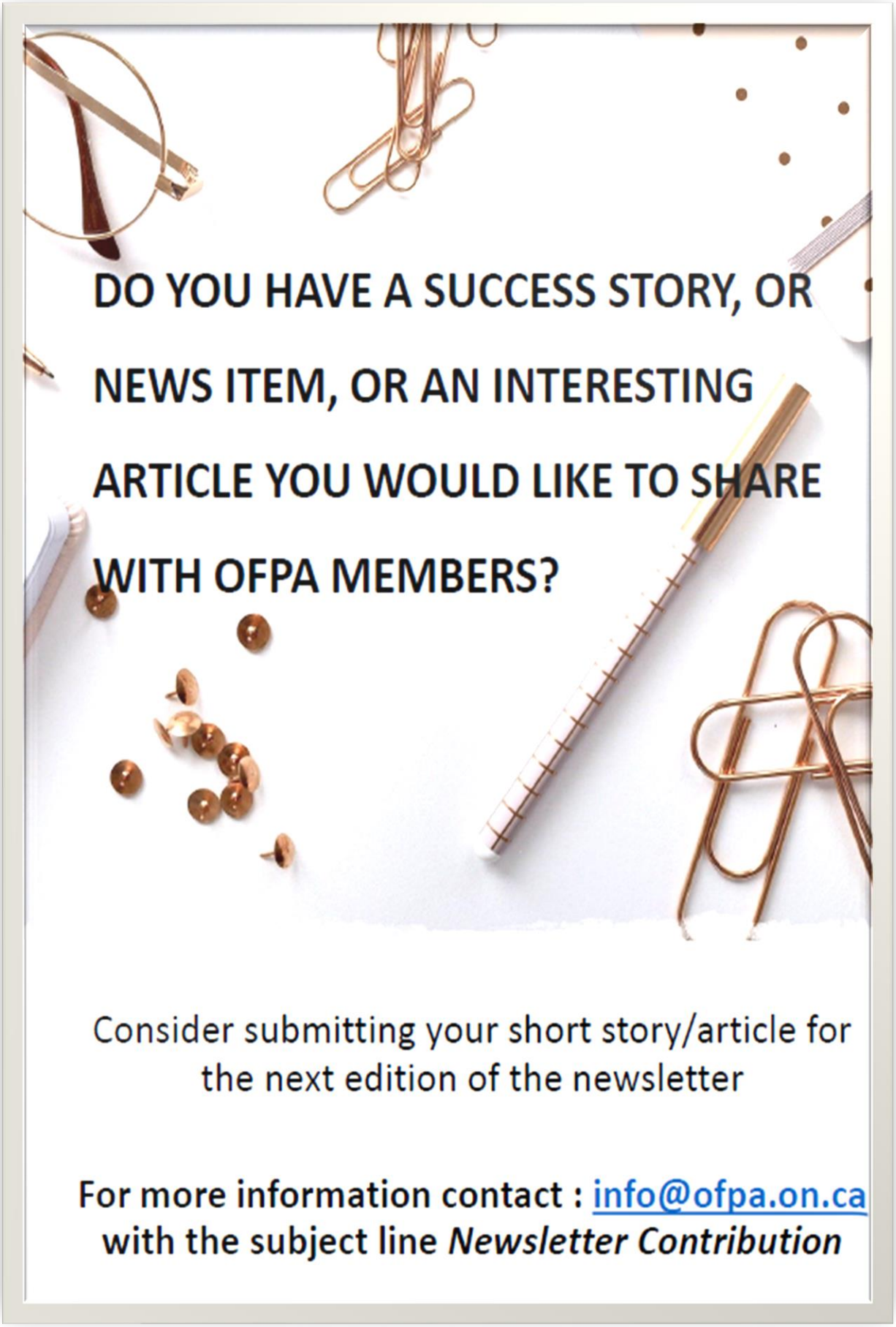
OFPA STATEMENT – PROFIT & LOSS SUMMARY

FOR THE YEAR ENDED DECEMBER 31, 2020

	2020	2019
REVENUE		
Membership fees	$9,281	$9,218
Fall Meeting	$7,125	$32,896
Spring Meeting	$0	$35,668
Golf tournament	$0	$14,166
	$16,406	**$93,763**
EXPENSES		
Administration	$17,325	$19,416
Scholarships	$6,000	$7,250
Advertising and Promotion	$4,850	$12,286
Insurance	$3,124	$3,030
Fall Meeting	$2,381	$16,448
Office and General	$1,120	$1,307
Professional Fees	$800	$2,800
Bank charges, interest and merchant fees	$629	$3,106
Spring Meeting	$0	$13,265
Golf Tournament	$0	$12,200
IAFP Conference	$0	$2,633
	$36,229	**$93,741**
EXCESS OF (EXPENSES OVER REVENUES) REVENUES OVER EXPENSES	($19,823)	$22
NET ASSETS, beginning	$35,159	$35,137
NET ASSETS, ending	**$15,336**	**$35,159**

OFPA PROPOSED BUDGET 2021

	2020	2021 Planned
REVENUE		
Membership fees	$9,281	$9,281
Fall Meeting (assuming Virtual)	$7,125	$7,125
Spring Meeting (assuming Virtual)	$0	$7,125
Social Night (assuming Virtual)	$0	$7,125
Government Assistance – Ontario Small Business Support Grant	$0	$10,762
	$16,406	**$41,418**
EXPENSES		
Administration	$17,325	$18,900
Scholarships & Awards		
**In 2021 we plan to humbly request support for our Scholarship & Award program – Sponsorship is now available!*	$6,000	$0
Advertising and Promotion	$4,850	$4,850
Insurance	$3,124	$3,124
Fall Meeting (assuming Virtual)	$2,381	$2,381
Spring Meeting (assuming Virtual)	$0	$2,381
Social Night (assuming Virtual)	$0	$2,381
Office and General	$1,120	$1,120
Professional Fees	$800	$800
Bank charges, interest and merchant fees	$629	$629
Taxes	$0	$1061.29
	$36,229	**$37,627.29**
TOTAL ASSETS, beginning of the year		$15,336
FORCASTED ASSETS, ending		**$19,126.71**


DO YOU HAVE A SUCCESS STORY, OR NEWS ITEM, OR AN INTERESTING ARTICLE YOU WOULD LIKE TO SHARE WITH OFPA MEMBERS?
Consider submitting your short story/article for the next edition of the newsletter
For more information contact : info@ofpa.on.ca with the subject line Newsletter Contribution

SAVE THE DATES

Sustaining Corporate Member Spotlight

PJRFSI ADVANTAGES

PJR FSI Food Safety, Inc.

YOUR PARTNER FOR FOOD SAFETY!

- 9.5/10 rating – superior customer service
- Auditors average 15 years of Industry & Audit Experience
- Multilingual capabilities – supporting 30+ programs worldwide with 500+ auditors
- Stress-free scheduling with a

Perry Johnson Registrars (PJR) and **Perry Johnson Registrars Food Safety Inc.,** (PJRFSI) are recognized around the world by various Accreditation Bodies including ANAB, UKAS, ACCREDIA (Italy), JAB (Japan) and ema (Mexico). PJRFSI is committed to providing value-added food safety certification to clients. Our entire team believes that rigor and consistency during audit activities leads to higher levels of customer and end user satisfaction.

PJRFSI is dedicated to upholding the highest standards of professionalism, technical competence and integrity throughout the life cycle of the audit process. We apply the principles of quality management, collaboration and organizational excellence in all of our office and field activities and comply with the requirements set forth by the international standards organizations, accreditation bodies and other affected parties. Through this dedication, we have created and maintain a work environment which provides opportunities and a culture of continual improvement, learning and development for clients, auditors, staff and stakeholders within the food chain.

PJRFSI PROGRAMS

1st Party Client Specific Audits – Unaccredited (Supplier or Site)

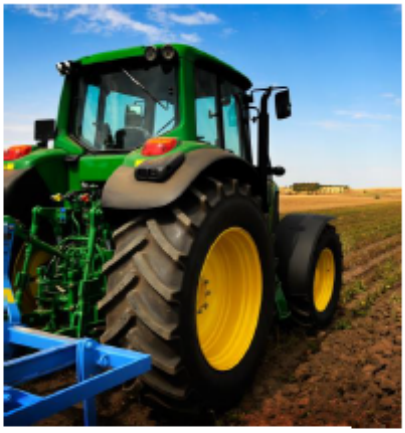
- (Food Safety, Quality, Brand Protection, Social Responsibility, etc.)

2nd Party Audits – Unaccredited (Supplier or Site)

- GMP – Good Manufacturing Practices
- Organic
- Primary Packaging (packaging that has direct product contact)
- Distribution Center / Warehouse
- cGMP (Supplements and Pharmaceutical Industry)
- Other:
- Cannabis GAP/GMP/Retail; Manufacturing, Cultivation
- Harmonized GAP Standards;
- HACCP for Laundry; Seafood HACCP

3rd Party Accredited Management System Audits

- GFSI (SQF, FSSC, BRC, GlobalGAP, CANADAGAP, etc.)
- GRMA (Dietary Supplements, OTC, Cosmetics)
- Management Systems: ISO 9001, ISO 14001, OHSAS 18001, ISO 45001, Responsible Recycling (R2), RIOS, e-Stewards, AS9100, AS9110, AS9120, IATF 16949, ISO 13485, ISO, 37001TL 9000, BA 9000, ISO 27001, ISO 20000-1, ISO 22000, FSSC 22000, ISO/IEC20000-1, BA9000, TL9000, ISO/IEC 27001, HSMS



PJRFSI TRAINING

- SQF - Edition 9 Implementation, Quality Code Edition 9, 8.1 to 9 Conversion
- FSVP - FSPCA Preventive Controls for Human Food
- HACCP - International HACCP Alliance

PJRFSI WEBINARS

PJRFSI is pleased to offer regularly-scheduled webinars on a variety of topics with industry experts as guests – completely free of charge! Previous topics include SQF Edition 9, Supply Chain Management, Root Cause Analysis, and guests such as Gary van Breda of the McDonald's Corporation, Dr. William Li of the Angiogenesis Foundation, and many more!

For a full listing of our free webinars as well as downloadable slides and recordings of past webinars, visit www.PJRFSI.com/webinars/

Sustaining Corporate Member Spotlight

Lumar Food Safety Services Ltd.

Specializes in food safety, quality and technical support for the food industry that includes auditing, training, and consulting services. Providing add value and benefit to your business by streamlining processes and programs; ensuring efficient and effective business processes and compliance that results in saving time and money.

LUMAR FOOD SAFETY SERVICES LTD.

Mission

To assist the food industry and its stake-holders in ensuring they meet global and local changes within the sector. We provide training, consultation and technical support to ensure your employees have the right tools to succeed. Lumar Food Safety Services guarantees to establish a sustain-able quality management system to ensure your company satisfies BRC, customer, and regulatory food safety and quality standards.

Services

We use only BRC Approved Auditors, Consultants, and Trainers

Our services include:

- Auditing (including pre assessments and GAP assessments)
- Consulting
- Training in BRC Agents and Brokers, Food, Packaging, Storage & Distribution, and Retail

Register Today for Special Conference Discount!

CERTIFIED GLUTEN-FREE

BRC PROFESSIONAL

BRC APPROVED TRAINING PARTNER

FSPCA

BRC CONSULTANT

SQF INSTITUTE

An Officially Licensed SQFI Training Center

BRC APPROVED TRAINING PARTNER

BRC GLOBAL STANDARDS

FOOD SAFETY AMERICAS 2017

Approved Training Partner and Consultant of the Year 2017 Award Winner

www.lumarfoodsafetyservices.com

Sustaining Corporate Member Spotlight

Sustaining Corporate Member Spotlight

Hygiene Academy Remote Learning

Same Challenges, New Environment.

The food, beverage and life science industries depend on a knowledgeable, well-trained workforce. According to a survey published in the Economist, 50% of food and beverage processors identify skilled labor as their number one challenge.

This challenge is further pronounced when employee health and safety is at the forefront of manufacturers' concerns. Many manufacturers are being forced to rethink their approach to training; restricting plant access to non-essential and external entities limits the number of potential contamination and exposure events. The development of plant specific, high-quality training is resource intensive and, for many operations, comes with prohibitive economic hurdles.

How Diversey Can Help

With these challenges in mind, Diversey has created Hygiene Academy Remote Learning. As part of Diversey's Hygiene Academy platform, the instructor led Remote Learning modules utilize an e-learning environment to provide live, personalized training to manufacturing professionals. Diversey's Hygiene Academy Platform consists of three tiers:

Tier 1: Fully virtual, instructor-led, interactive training

Integrate Diversey's global knowledge into your operation. Facilities can now select Remote Learning modules from an extensive catalog of prepared topics, with the option to fully customize any aspect of the training materials. Custom Remote Learning modules can incorporate customer's pre-written sSOP's and address plant specific objectives or areas of concern.

Tier 2: Supplemental training through Hygiene Academy's Learning Management System

Diversey's team of subject matter experts have developed a range of supporting coursework, available through the Hygiene Academy LMS. Materials are available in multiple languages and have been accredited by the Continuous Professional Development (CPD) Certification Service as "conforming to the continuing professional development principles." Courses include videos, ancillary reading, and quizzes to enhance employee comprehension.

Tier 3: Hygiene Academy, the ultimate learning repository

The Hygiene Academy LMS supports customized learning paths specific to operation, employee, or organizational need. Create personalized curriculums by selecting supplemental learning modules that provide a foundation for additional instructor-led training. Whether pre-built or fully custom, Remote Learning modules can be fully integrated within your training program. Actively manage enrollment, course selection, and monitor employee progress with the Hygiene Academy LMS.

Expert Led. Fully Remote. Ready To Customize

Diversey's team of sector specialists, microbiologists, and subject matter experts will partner with you in tailoring training to fit the exact needs of your operation.

Click Here to speak with Diversey's Sector Expert Team!

Sustaining Corporate Member Spotlight

Tewari De-Ox Systems, Inc.

www.tewarisystemsglobal.com

"WE EXTEND LIVES...."®

Zero-OxTech® [12+ US & Intl Patents Pending]:

- Invented by Dr. Tewari, a renowned Food Process Chemical Engineer with 25+ years of Global Food Industry Experience, having track-record of commercializing Novel Food Processing Systems in USA & CANADA
  - The FIRST PROCESS to preserve natural enzymes resulting in long shelf-life:
  - No change in intrinsic characteristics of proteins
  - No interventions/use of antimicrobials during protein processing [especially poultry]
  - Natural aging during shelf-life extension
  - No short-cuts/No anti-biotics/No preservatives/No detrimental effects on Human Health
- Testing and validation at reputed companies, research-centers, and universities, such as, Riz Global Foods [Toronto, CANADA]; Tyson Foods [Springdale, AR, USA]; Mississippi State University [Mississippi State, MS, USA]; San Angelo Lambs [San Angelo, TX, USA]; Grove Meats [Blue Island, IL, USA].
- In compliance with FDA/USDA/CFIA/Health Canada and global food regulations.

Protein-type	Shelf-life programs	Tewari's Zero-OxTech®
Red meat	Zero-OxTech® primals program	10+ weeks
	Zero-OxTech® case-ready/portion-cuts program: 1.Zero-OxTech® Vac-pack OR 2.Conventional foam tray in Zero-OxTech® mother-bag process	6 to 15 weeks
	Retail Display [conventional foam tray, after removal from Zero-OxTech® mother bag]	5 to 15 days
Poultry	Zero-OxTech® mother-bag	±22 days
	Zero-OxTech® MAP tray	±20 days

"Tewari De-Ox Systems provided us with 70 days of shelf-life for red meat steaks under refrigeration for both domestic and global markets."

Mr. Ali, President, RizGlobal Foods Inc., Toronto, Canada.

Contact:
Tewari De-Ox Systems, Inc.
9225 Leslie Street, Suite 201
Richmond Hill, ONTARIO L4B 3H6 CANADA
Phone: 1-844-4-ZERO-OX • Fax: 1-844-493-7669
Email: info@tewarisystemsglobal.com

Tyson

Tewari De-Ox Systems, Inc., Zero-OxTech® process provided 28 days of shelf-life for deli birds/poultry and has provided opportunity to serve both coasts using a centralized facility.

Principal Investigator: Jason M. Behrends, Ph.D., R & D, Tyson Foods, Springdale, AR, USA

Fig. 1: APC's for Deli Birds over time using Zero-OxTech process.

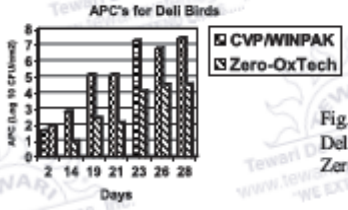


Fig. 2: Anaerobic APC's for Deli Birds over time using Zero-OxTech process.

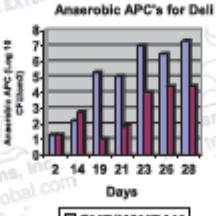
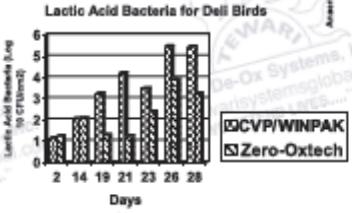


Fig. 3: Lactic Acid Bacteria for Deli Birds over time using Zero-OxTech process.



Key Properties of Zero-OxTech®

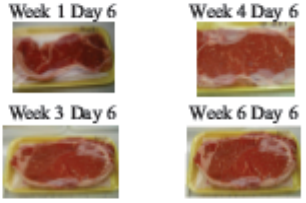
1. No Carbon Monoxide Used
2. No PAA for Organic Poultry
3. Extended Shelf-life
4. Low Cost Customizable Options
5. Ease of Application
6. Case-ready Retail Application
7. Reaching Un-tapped Markets
8. Manual or Automated Dispensing
9. Easy Adaptability to Existing Production Lines
10. Profitable Inventory Management

Evaluation of overwrapped red meat steaks packaged in a mother-bag case-ready system Tewari Zero-OxTech System®

Mississippi State University
J. M. Behrends and C. M. Loick

CONCLUSION

The Tewari Zero-OxTech® System would allow suppliers to extend storage of case ready red meat steaks to a minimum of six weeks in mother bags with an additional 6d minimum retail display.



Sustaining Corporate Member Spotlight

OFPA

ONTARIO FOOD PROTECTION ASSOCIATION

OFPA MEMBERSHIP BENEFITS

Sixty-two years ago, the Ontario Food Protection Association (OFPA) was founded and allowed us to network and professionally develop ourselves in ways that were not otherwise available at that time. In today's uber-linked world, connecting with our peers is a mere post or tweet away. Joining and supporting the OFPA allows food and beverage industry professionals access to an abundance of benefits. OFPA is a not for profit organization and we look forward to welcoming your support as a member.

PARTICIPATE

Participate in workshops, industry-specific discussions, and panels. Our common forum is targeted for those associated with the food safety industry, academia and government in Ontario.

Membership to the OFPA is critical in your professional food safety journey. Being a member is seen as a benefit by prospective employers and industry.

The OFPA allows you to participate by presenting timely topics at our events, volunteering on our board, authoring an article for our newsletter or website. Support the industry and raise your profile in the food safety community!

CONNECT

Connect with food safety professionals, exchange ideas, experiences, and share information through our annual events such as the Golf Tournament, Social Network Mixer, and Spring and Fall Symposia.

The strength of our association lies in the ability for our members to connect with the food safety sector. Members attending our events will have the opportunity to meet with some of the top minds of this very important industry sector. Join the OFPA today!

LEARN

Learn new ideas, strategies, and best practices for safe hygienic food production from industry, government and academic experts.

We deliver professional workshops, webinars, and events, and publish targeted and relevant up-to-date information to raise awareness of important topics.

SAVE

Members have access to discounts to OFPA and other industry events.

RECOGNIZE

The association recognizes companies and individuals for their outstanding work in food safety. We issue annual scholarships to students who have demonstrated excellence in food safety. Our member students have the opportunity to take a proactive role by showcasing their talents to their industry peers at our events. CFIS auditors recognize OFPA membership as a means for ensuring your site is kept informed of changes to relevant legislation, scientific and technical developments, emerging food safety issues, and relevant industry codes of practice.

OFPA

ONTARIO FOOD PROTECTION ASSOCIATION

Follow the link to Join the OFPA now

www.ofpa.on.ca/join/membership?layout=blog

Conference Schedule 2021

EVENTS FY21 - FS & SCM	DATES	LOCATION
GFSI Conference	March 2-4, 2021	Virtual Event
2021 OFPA Spring Technical Meeting & Clive Kingsbury Poster Competition	April 15, 2021	Virtual Event
Food Safety Summit	May 10-13, 2021	Rosemont, IL
BRCGS Food Safety Americas	May 18-20, 2021	Virtual Event
North American Manufacturing Excellence Summit (NAMES)	June 15-16, 2021	Chicago, IL
United Fresh Convention & Expo	June 24-26, 2021	Los Angeles, CA
GSAF USA 2020-21	June 29 – July 1, 2021	MGM Grand, Las Vegas, USA
IAFP	July 18-21, 2021	Phoenix, AZ
North American Supply Chain Summit (NASCES)	September 14, 15, 2021	MGM Grand, Las Vegas, USA
United Fresh Washington Conference	September 20-22, 2021	Washington, DC
2021 OFPA Social Networking Mixer	September 23	Cedar Brae Golf Club, 55 Mac Frost Way, Scarborough, ON M1X 1N6
North American Food Safety & Quality (NAFS)	September 28, 29, 2021	Chicago, IL
GRMA - Global Retailer & Mfg. Alliance	September 29 - Oct 1, 2021	Rosemont, IL
SQF Conference	October 26-28, 2021	Orlando, FL
PMA Fresh Summit	Oct 28-30, 2021	New Orleans, LA
eft by Reuters Events Supply Chain USA	Oct 21-24, 2021	Chicago, IL
2021 Fall Food Safety Symposium & Annual General Meeting	November 18, 2021	To Be Confirmed

Your 2021 OFPA Board of Directors

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OFPA Guardian

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