CHICKEN FARMERS OF CANADA
LES PRODUCTEURS DE POULET DU CANADA

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THE CHICKENFARMER

in this issue

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UPDATE ON MERCOSUR

On Friday April 24th, Argentina announced that it was suspending its involvement in all ongoing Mercosur trade negotiations in order to focus instead on internal matters. However, a few days later on April 30, the Argentinian government appeared to backtrack on this statement, clarifying that the country would remain involved in ongoing trade negotiations, but that it intends to move forward slowly and not rush to any conclusions.

The four Mercosur partners – Argentina, Paraguay, Uruguay, and Brazil - met virtually on July 2 to regroup and consider how to move forward. Although the meeting's agenda included a number of items, such as the negotiations under way with Canada, Australia, Singapore and New Zealand, adjusting the trade union's common external tariff, and the Covid-19 pandemic, the discussions focused on the ongoing

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work to finalize the free trade agreement with the European Union. Not only does the legal review of this text still need to be completed, there are also outstanding concerns about standards enforcement particularly in terms of agricultural trade, where the removal of a European beef tariff line depends on exports meeting EU standards. Even with this one issue focus, it was reported that very little resulted from the meeting.

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Meanwhile, Mercosur's negotiations with Canada continue albeit at an exceedingly slow and cautious pace. At the moment, there are no plans for the next and eighth round of negotiations, although a couple of groups, such as those working on Rules of Origin and government procurement, have met virtually with the aim of moving the text forward in non-controversial areas, such as finding common ground regarding definitions. Due to the contentious issues remaining in the market access discussions, there has been agreement that pursuing talks in this area, either for goods or services, must be conducted face to face; virtual discussions have been deemed inappropriate. Only once travel is again allowed, and arrangements made for Round 8 of the negotiations do these groups expect to return to the table.

Despite this pause in the discussions, the Canadian agricultural sector, and the chicken sector in particular, remain engaged in monitoring these talks due to the high potential for market access losses. While Canada ranks as the fifth largest agricultural exporter in the world, Brazil is currently the third largest after the United States and the EU, and Argentina ranks seventh largest; even Paraguay and Uruguay are important players in the global agricultural market. All four Mercosur members directly compete with Canada on the global beef market - where Brazil and Argentina outrank Canada, and Uruguay and Paraguay follow hotly on its heels - as well on in the global corn market, where Brazil, Argentina and Paraguay all outcompete Canada.

Both Brazil and Argentina are important players in the global chicken market. Brazil is the world's number one chicken meat exporter, dominating 33% of the market in 2019 with 3.8 billion kilograms of exports. Canada's total production that same year was 1.3 billion kilograms, a third of the volume of Brazil's exports. Brazil is also already Canada's second largest source of chicken imports after the U.S., with 14.9 million kilograms of imports in 2019. For its part, Argentina, which exported just 10,100 kilograms into Canada last year, has been actively seeking to further open Canada's domestic market as part of its aim to grow its chicken exports to 145 million kilograms in 2020.

Both these circumstances mean that there is potentially a great deal at stake during these free trade negotiations for the domestic chicken sector. Given the market losses experienced by the Canadian chicken sector due to the recent entry into force of the CPTPP and the new North American trade pact, the CUSMA, whenever the negotiations with Mercosur do recommence, it will be imperative the Canadian government holds firm to its commitment to ensuring that there will be no further concessions granted into the domestic chicken market.

ONGOING COVID COMMUNICATIONS WITH CONSUMERS

Once COVID came to Canada, the entire communications and consumer relations arena shifted. We were thrust into a position whereby we had to work with consumers who were home and online more, and who wanted more and more of our content.

We had to pay attention to our approach and messaging, ensuring that we remained proactive, and not tone deaf to the challenges that COVID presents – as well as new social justice issues making their presence known in a big way across this country and others.

CFC jumped at this chance, and began to offer more and more content for consumers to enjoy, and more and more information for them to learn about who we are and what we do. It is an opportunity to grow, inform and lead – and we took it.

We've vastly increased our daily posts on all social media platforms

We've been highlighting the work of all the previously unsung heroes of this pandemic, from farm to table and beyond

We've entertained with funny, approachable, and accessible content

We've added a "Cooped Up" section to our site, which features content for those spending more time at home

We've featured a message from our Chair, addressing urban legends about chicken, and letting people know that CFC is there for them

We've adapted our public messaging to be more helpful and less self-promoting

Through our #Takeoutday (Canada Takeout) program, we joined forces with the SM5 to promote foodservice, who is having a very difficult time in this pandemic

We've adjusted our content to ensure that, since more people are cooking from home, they have the tools to do so safely

We were a featured panelist for a webinar by Restaurants Canada, talking about the impact of COVID on our sector and how restaurants can use and promote our products

We've used the time to promote our farmers and their commitment to excellence in food safety, animal care, and sustainability

These approaches help us get closer to the public trust we seek and help us ensure that we are delivering on consumer expectations.

CPRC UPDATE

PHAGES SHOW PROMISING POTENTIAL TO IMPROVE SAFETY OF POULTRY PRODUCTS

Campylobacter and *Salmonella* continue to top the list of troublesome foodborne pathogens in Canada. They live in the intestines of many food producing animals, including poultry, and commonly contaminate raw meat products during slaughtering and processing. An Ontario researcher is looking at bacteriophage (bacteria "eaters") – viruses that specifically attack target bacteria – to improve food safety that could reduce the use of conventional antimicrobials.

"Research clearly indicates that cross contamination during processing and chilling steps is taking place and represents a significant food safety risk during poultry processing," says Dr. Hany Anany, research scientist with Agriculture and Agri-Food Canada, and lead investigator on a research project looking at the use of bacteriophage to reduce the risk of foodborne pathogen contamination on poultry products during processing.

NEW INTERVENTIONS NEEDED

Anany has been studying the use of phages as a way to mitigate the risk of different foodborne pathogens to improve food safety for the past 16 years. "There is clear evidence that *Campylobacter* and *Salmonella* are ongoing and unresolved challenges for the poultry industry and Canadian consumers," he says. "We need to explore various innovative and cost-effective interventions that can be applied during processing to reduce the pathogen burden without affecting the quality of the final poultry product."

Anany is partway through a three-year research project to look at the use of bacteriophages – a green, environmentally-friendly technology – as a novel way to control *Campylobacter* and *Salmonella* contamination during poultry carcass chilling and packaging.

THE PROMISE OF PHAGES

Lytic phages are bacterial viruses designed to only infect and kill a specific host – e.g. *Campylobacter* or *Salmonella*. Several studies have shown the efficiency of phages to control the growth of different bacterial pathogens.

"Phages are a promising antimicrobial intervention that could be used before, during and after the water-based chilling step of poultry product processing," says Anany. "Although phages aren't yet being used in the poultry industry, post-chill use shows promise."

"THERE IS CLEAR EVIDENCE THAT CAMPYLOBACTER AND SALMONELLA ARE ONGOING AND UNRESOLVED CHALLENGES FOR THE POULTRY INDUSTRY AND CANADIAN CONSUMERS."

Anany's research is looking at two application approaches of phages – free and immobilized – at two critical points during poultry processing, as a means to improve food safety. "Free" phages can be applied to whole carcasses and cut-up parts by dipping or spraying a phage suspension before packaging to significantly reduce contamination of target pathogens – *Campylobacter* and *Salmonella* in this case – in the final consumer product.

"Immobilized" phages could be used in the absorbent pads within poultry product packaging to further minimize contamination during the product's shelf life. "Phage-based bioactive packaging would be a controlled release to ensure added phages would be able to tackle any existing and post-processing contamination during the shelf life of the product. This would extend product shelf life and improve food safety while maintaining the quality of the packaged food, including poultry products," says Anany.

COMMERCIAL POTENTIAL

Anany has screened poultry samples from commercial processing facilities and has already isolated phages against *Campylobacter* and *Salmonella*. "We have some promising phage candidates to be used in biocontrol experiments," he says. "Our hope is to ultimately deliver a cost-effective and environmentally-friendly strategy for commercial processing poultry facilities to help mitigate two of the top foodborne pathogens – improving safety of whole carcasses and cut-up parts without compromising food quality."

Some phage products have been approved for use in Canada and the U.S.

Anany's research is funded by the Canadian Poultry Research Council as part of the Poultry Science Cluster which is supported by Agriculture and Agri-Food Canada as part of the Canadian Agricultural Partnership, a federal-provincial-territorial initiative. Additional support has been provided by Maple Leaf Foods and Exceldore Foods.

Dr. Hany Anany, Ph. D

GR UPDATE

KEEPING THE CONVERSATIONS GOING DURING COVID-19

The COVID-19 pandemic has caused businesses and governments alike to readjust their priorities, and Chicken Farmers of Canada has followed suit to ensure the needs of farmers are being discussed with government at this time.

Chicken Farmers of Canada was invited to appear before the House of Commons Standing Committee on Agriculture and Agri-Food at the end of May and the House of Commons Standing Committee on Finance a week later to outline how COVID-19 has impacted Canadian chicken farmers. In addition to pointing out that chicken farmers would likely not qualify for the current Business Risk Management programs if a COVID-related depopulation were to happen, CFC Chair Benoît Fontaine also reminded members that poultry and egg farmers have been waiting for over a year regarding support programs stemming from losses related to the implementation of the CPTPP. Chicken Farmers of Canada appreciated members' questions and the opportunity to appear.

GIVEN THE UNPRECEDENTED SPENDING NECESSARY TO HELP CANADIANS THROUGH THE COVID-19 PANDEMIC, THE UPDATE WAS LARGELY DEVOTED TO RATIONALIZING THE GOVERNMENT'S SPENDING SINCE MARCH.

Chicken Farmers of Canada staff and Board Members have also been busy holding conversations with Parliamentarians and government officials to ensure they fully understand the impact that the global pandemic and government decisions are having on their operations. Canada's poultry and egg groups appreciate the opportunities we have had to meet with officials from Finance Canada and the Prime Minister's office recently, as well as members of the opposition who have been raising our concerns with government.

GOVERNMENT FISCAL UPDATE

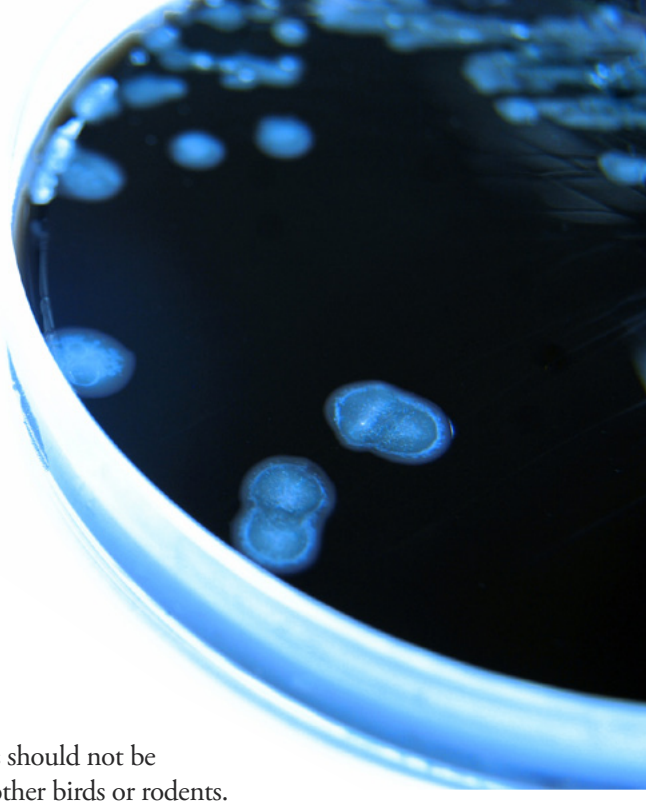
In early July, Finance Minister Bill Morneau delivered a 'snapshot' of Canada's economic and fiscal outlook from now until early 2021. The snapshot outlined the scale of the government's response to COVID-19, which amounts to the highest federal spending as a percentage of GDP since the Second World War.

The update accounts for the government's spending to date in fiscal year 2020/21. Given the unprecedented spending necessary to help Canadians through the COVID-19 pandemic, the update was largely devoted to rationalizing the government's spending since March. The government makes the case that, in the face of the pandemic and the unprecedented reduction of economic activity and tax revenues that it caused, significant federal spending was both essential to bolstering the economy and supporting Canadians.

As a result, the programs announced throughout the pandemic have grown the projected federal deficit for 2020/21 to $343.2 billion, or 16% of GDP.

Minister Morneau did not announce a federal budget during the presentation, nor commit to tabling one before the 2021 budget. As such, Canada's poultry and egg farmers continue to wait for the announcement regarding support programs that were promised to them as a result of losses stemming from the CPTPP. We continue to meet with government about the importance of these programs to farmers and are hopeful that farmers won't have to wait much longer for an announcement.

CONTROLLING *CAMPYLOBACTER* ON FARM



Canada's food system is one of the safest systems in the world. Chicken Farmers of Canada's Raised by a Canadian Farmer On-Farm Food Safety Program (OFFSP) provides valuable information on controlling access to the farm and cleaning and disinfection to address pathogen reduction on farm. Food safety starts at the farm.

Campylobacter is a species of bacteria that are widely distributed in warm-blooded animals (e.g., livestock, ostriches, cats, dogs) and in shellfish similar to *Salmonella* and *E. coli*. However, while *Salmonella* and *E. coli* has been in the minds of many for decades, *Campylobacter* has only garnered attention recently. Worldwide, *Campylobacter* infection, also known as *Campylobacteriosis*, is the most common cause of bacterial diarrhea; and in Canada, it is the third leading cause of foodborne illness and hospitalizations. Due to the high human health incidents, there is increased need to promote interventions to reduce pathogen reduction across the supply chain, starting at the farm level.

Farm practices play a key role in controlling colonization within poultry barns and flocks. Transmission can occur from the environment as well as through horizontal transmission between flocks. Once *Campylobacter* colonizes a flock, it spreads quickly making eradication nearly impossible. Poor biosecurity, reduced downtime, the presence of other farm animals, rodents and insects and seasonal changes may increase the risk of *Campylobacter* colonization. Several management practices that can be implemented at the farm to reduce the spread of *Campylobacter* are highlighted below:

BIOSECURITY

Campylobacter can be carried into the barn via boots, clothes, and equipment. Handwashing or hand-sanitizing stations at entry points will promote everyone entering and leaving the barn to wash their hands. Additional biosecurity measures should be used for visitors – clean coveralls, barn specific boots or boot covers, and hairnets is a step in the right direction.

WATER

Water sources should not be accessible to other birds or rodents. *Campylobacter* has a high survivability rate in water and can contaminate water sources. Therefore, the microbiological quality of drinking water should be monitored and techniques such as filtration, chlorination, or acidification should be introduced when needed. Examples of potential contamination areas include water nipples or cups in the barn, puddles, wastewater, or surface water outside the barn.

RODENT CONTROL

Rodent populations should be monitored and controlled. House flies, darkling beetles, cockroaches and meal worms can all act as potential vectors for bringing *Campylobacter* into the barn. Removing debris from inside and outside of poultry barns as well as vegetation surrounding the barn can help in reducing places for rodents to hide in.

CLEANING AND DISINFECTION

Residual contamination from previous flocks is a common vector for *Campylobacter*. There is an emphasis on the need for improved cleaning, washing, and disinfection of broiler barns between flocks and biosecurity practices to stop the self- perpetuating cycle of flock contamination.

Despite all the research conducted to date, there is no single control measure that is best at reducing *Campylobacter*. Therefore, the most appropriate tactic is to combine several strategies to minimize colonization and subsequent infection in broilers.

IS YOUR BARN OVERCROWDED?

If so, it could be time to do some math and adjust your placement numbers. The density requirements laid out in the Animal Care Program play an important role in balancing broiler performance and well-being.

Stocking density is an animal welfare issue with obvious impacts on the economics of bird performance. The Chicken Farmers of Canada's maximum allowable density limits are based on the Codes of Practice set by the National Farm Animal Care Council. Regular density level is set at 31kg/m^2 with the ability to increase density to maximum of 38kg/m^2, if certain conditions are met.

Among the several factors that influence the density and maximum number of chicks that can be placed in a barn, historical farm mortality data is an important tool to predict future mortality and determine placement numbers for the next flock. Consistency is key when monitoring fluctuations in mortality rates, as that data provides the information needed to adjust chick orders accordingly and mitigate any overcrowding at the end of production.

The math used to calculate the maximum number of birds that can be placed in the barn can be found in the Animal Care Program manual. There are several parameters used to determine the number of chicks that can be placed in a barn, including:

- Barn floor size
- Target weight
- Maximum density
- Total number of feeders and drinkers
- Manufacture recommendations for drinkers and feeders
- Estimated mortality

Apart from farm mortality, the parameters listed above will likely remain constant for the foreseeable future. You can check out example calculations for determining the maximum number of birds that can be placed in a barn on the following page.

EXAMPLE CHICK PLACEMENT CALCULATION

Barn floor area: **733.8 m²** (area accessible to the birds)

Target weight: **2.15 kg**

Farm mortality average for 2018: **3.6 %**

Maximum density: **31kg/m²**

Total number of feeder pans: **207**

Total number of nipple drinkers: **948**

Manufacturer recommendations for # birds/feed pan: **55**

Manufacturer recommendations for #birds/nipple drinker: **12**

BIRD CAPACITY BASED ON MAXIMUM DENSITY AND TARGET WEIGHT

* Bird capacity must be recalculated when changes to target weight and maximum density are made

= (Total floor area ×maximum density)÷target weight

= (733.8 m² ×31 kg/m²)÷2.15 kg

= 10,580 birds

BIRD CAPACITY BASED ON THE FEEDERS

= (total number of feeders)×(recommended number of birds/feeder)

= (270 feeders)×(55 birds/feeder)

= 11,385 birds

BIRD CAPACITY BASED ON THE DRINKERS

= (total number of drinkers)×(recommended number of birds/drinker)

= (948 drinkers)×(12 birds/drinker)

= 11,376 birds

MAXIMUM NUMBER OF CHICKS THAT CAN BE PLACED

* Use the lowest bird capacity from the above calculations

= (lowest bird capacity)×(100)÷(100-estimated percent mortality)

= (10,580 birds)×(100)÷(100-3.6)

= 10,975 birds

While there isn't a specific number of flocks necessary to compute estimated mortality, we recommend using farm mortality data from the previous year.

DR. DEREK ANDERSON, DALHOUSIE UNIVERSITY

Recipient of the 2020 Canadian Industries Award in Extension and Public Service

Dr. Derek Anderson has contributed substantially to livestock extension services in Canada since starting his career with Alberta Agriculture as a monogastric nutritional in 1978 and then throughout his time with the Nova Scotia Agriculture College (later recognized as part of the Dalhousie University).

Dr. Anderson studied Animal Science at the Universities of Manitoba, Saskatchewan, and Alberta, specializing in Swine Nutrition. In Alberta, he partook in delivering Alberta Production Home Study Course and contributed regularly to the Western Hog Journal. Dr. Anderson dedicated significant amount of time to provide nutrition consultation to producers focusing on integrating laboratory feed analysis with ration balancing for pork, poultry and rabbit producers.

HE HAS PUBLISHED OVER 200 PUBLICATIONS IN PEER-REVIEWED SCIENTIFIC JOURNALS.

The next phase of Dr. Anderson's career began when he accepted a teaching position with Nova Scotia Agriculture college in 1982. He became involved with the Atlantic Poultry Research Institute (APRI) since its beginning in 1988 and held key roles over the years. Dr. Anderson was the Chairman of the APRI Board from 2002-2014 and Chief Executive Office from 2002-2015. He built strong relationships with the industry through APRI to identify research priorities, facilitate industry driven research and then transfer the knowledge gained back to the producers.

With the poultry sector, Dr. Anderson placed an emphasis on regional issues and predominately focused on nutritional evaluation of feed stuffs for laying hens, turkeys and broiler chickens. His broiler-related research involved the use variety of ingredients and technology to influence the composition of their diets including enzymes, feedstuffs of marine origin, cold-pressed oilseed meals, and full fat oil seeds.

Dr. Anderson taught vocational courses though technical, undergraduate, and graduate programs. Several of the poultry nutritional lectures taught by Dr. Anderson was available to Atlantic poultry producers. He has published over 200 publications in peer-reviewed scientific journals. During his 33 years at the Dalhousie University, over 200 technical, degree, and graduate student projects were supervised by Dr. Anderson before retiring at the end of December 2015.

Dr. Derek Anderson is the recipient of the 2020 Canadian industries Award in Extension and Public Service. The award is given to members of Canadian Society of Animal Science (CSAS) to recognize outstanding service to the animal industries of Canada in technology transfer, leadership and education in animal production. Dr. Anderson's outstanding contribution to advancement of education and technology transfer in animal agriculture in Canada has been recognized. The Canadian Industries Award in Extension and Public Service is partially sponsored by Chicken Farmers of Canada.

CONGRATULATIONS DR. ANDERSON!

HOW TO VIDEOS – HELPING CONSUMERS REALLY ENJOY THEIR CHICKEN

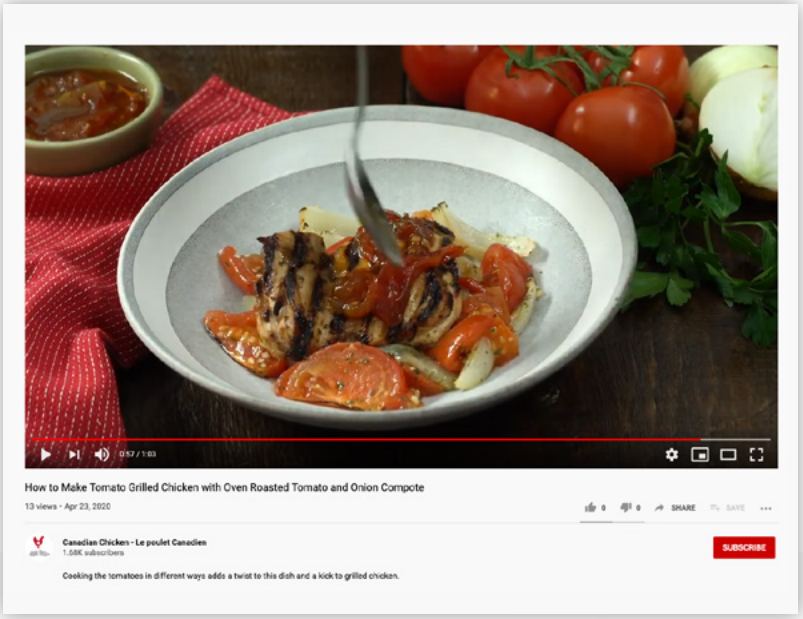
In the earlier part of this year, CFC created 10 How-To Videos to support the brand, amplify online metrics to adhere to web algorithms, increase search presence, and provide new content for consumers. These videos have been uploaded to our **YouTube channel** and will be released one at a time over the course of the year.

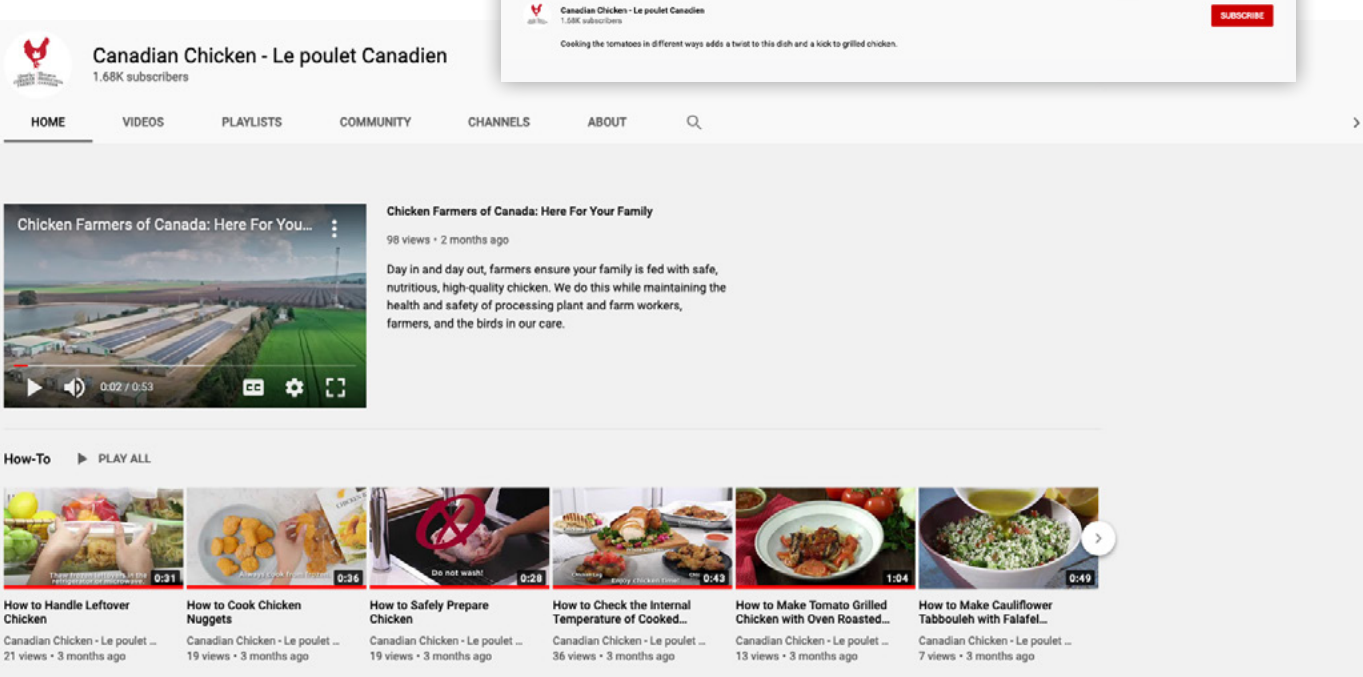
We choose the recipes for the videos by looking at metrics from our site, as well as other analytics that tell us the types of recipes consumers are seeking. Some of the videos are focused on some pathogen reduction messaging, in keeping with our commitment to empower consumers with the tools they need to enjoy chicken safely.

Our videos are:

- How-to make spicy chicken ramen
- How-to make chicken burgers with ginger aioli slay
- How-to make Persian phyllo tarts with pistachios
- How-to make green chili chicken lasagna
- How-to make cauliflower tabbouleh with falafel chicken patties
- How-to make tomato grilled chicken with oven roasted tomato and onion compote
- How-to handle leftover chicken
- How-to safely prepare chicken
- How-to cook chicken nuggets
- How-to check the internal temperature of chicken

Check them out, and enjoy!



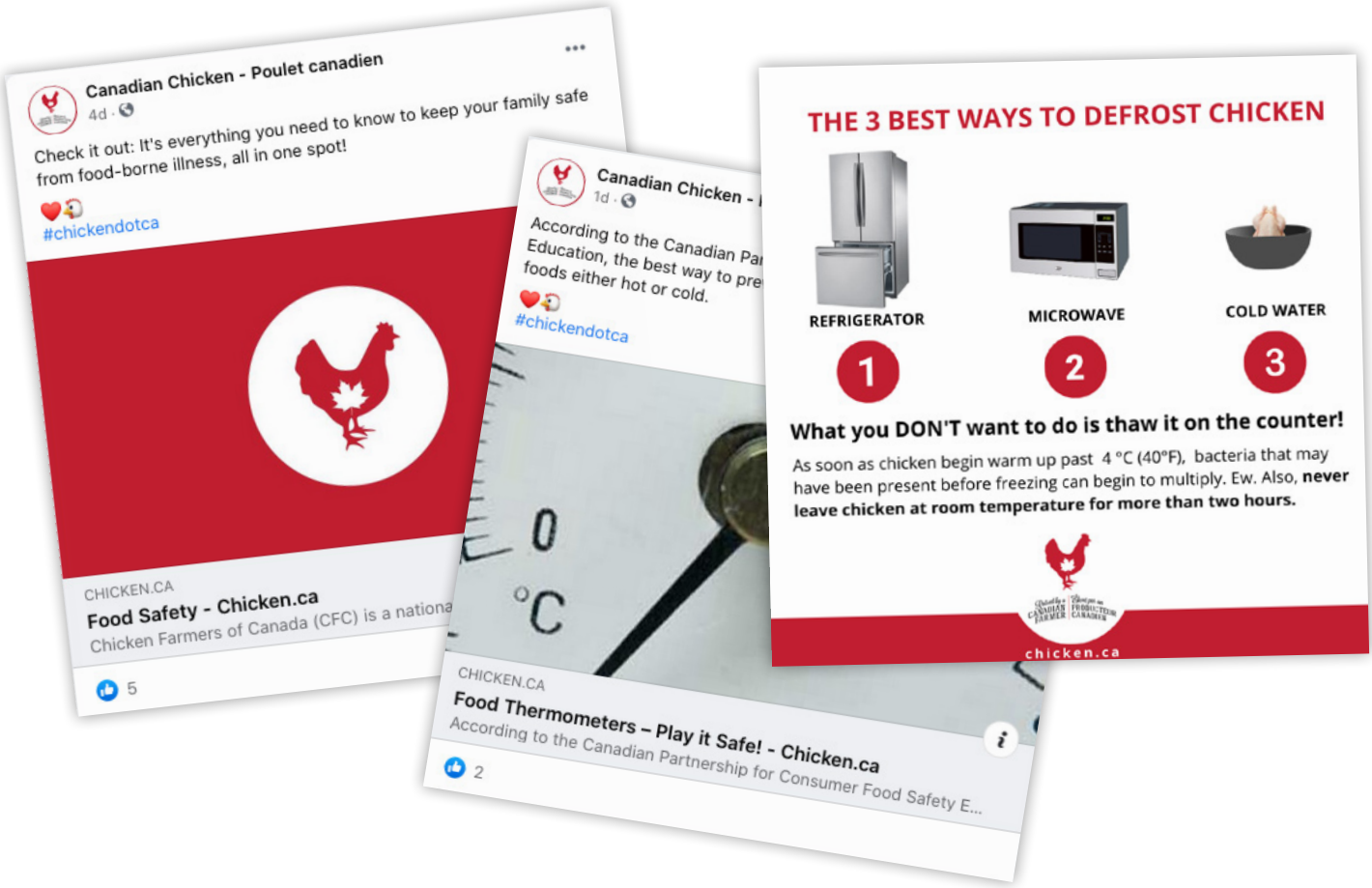


ENGAGING CONSUMERS ABOUT PATHOGEN REDUCTION

CFC's on-line communications strategy is carefully crafted to emphasize various topics, including; on-farm animal care, brand awareness, biosecurity, food safety, and more. Our pathogen reduction messaging was created to engage and educate the public about their role in the fight against foodborne pathogens. Messaging includes information about food storage, proper food handling, food temperatures, cross-contamination, the importance of proper cleaning, hand washing, and other related subjects.

Pre-COVID, they were posted several times a week and spread out across all our available social media channels, like, Facebook, Instagram and Twitter. Post-COVID, with the sudden and dramatic increase in people staying at home, pathogen reduction has gained an even more important and prominent role in our consumer-facing messaging, and we've increased pathogen related content significantly. They continue to be well received by consumers as indicated by steady growth in online engagement.

Communicating with consumers is crucial for building, reaffirming and ensuring public trust, and social media continues to be an effective vehicle for delivering pathogen reduction messages to the public, demonstrating our steadfast commitment to communicating with, and educating consumers about all things chicken.



CFC'S DIGITAL PRESENCE GROWS AND GROWS

Our consumer-facing website (www.chicken.ca) continues to grow and evolve. We are currently standing at between 4,000 – 5,000 daily visitors to our site, with spikes when we send out our newsletters, and when our email marketing initiatives within the Branding Strategy launch.

As usual, our most popular page (far and away) remains the Cooking Times page, which tells consumers the times and temperatures they need to know.

The recipes searched on our site tend to follow seasonal trends – with soups, stews, and roasted chicken in the winter, salads and colourful choices in the spring, bbq recipes in the summer, and casseroles, pastas, and autumn sides in the Fall.

In this first half of 2020, for the first time ever, French visits to our **www.poulet.ca** site have outpaced English. This is likely due to the fact that there are fewer French cooking sites, so traffic doesn't fall off in the same way.

Mobile use of our website has overtaken desktop by a wide margin.

Our shopping app is at over 45k downloads.

We have over 73k subscribers to our consumer e-newsletter (we publish one newsletter per month, except for our brand campaign months, where we do two).

NEW WEBSITE!

In 2020, we are redesigning the **www.chicken.ca** website. It has been over 6 years since our last design, and functionality, style and content requirements have changed. The Board approved the redesign in this year's action plan. This will help us figure more prominently in search and within Google's algorithms. We will see a dip in the numbers once it launches, and they will bounce back within a few months. The new site follows a more "magazine" style layout and will have significantly increased functionality.

COMING SOON!