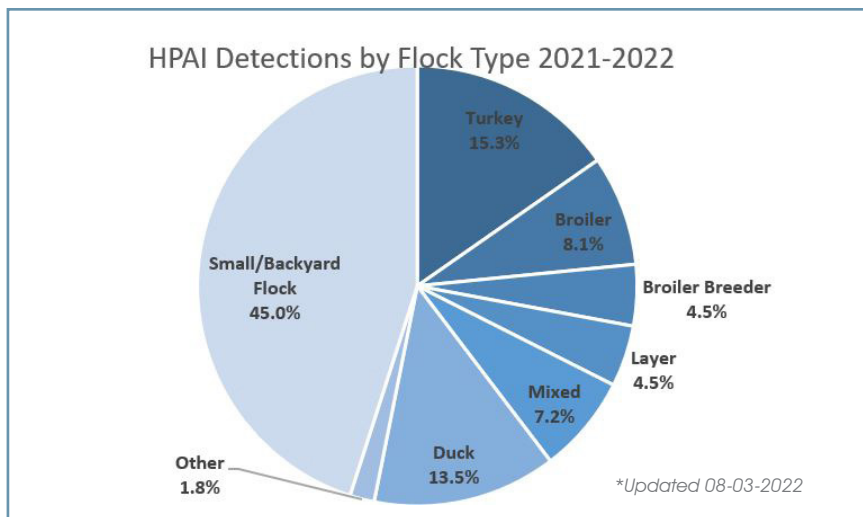




Avian Influenza



Highly Pathogenic Avian Influenza (HPAI) H5N1 has now been detected in 9 provinces since late 2021, affecting over 100 flocks and over 2 million birds.

Response efforts continue in impacted provinces, and many are now in the stage of recovery, which will lift zoning, and surveillance and movement restriction requirements.

Trends indicate that the peak of new cases was in April to May, though there were a small number of infections into July. Similar trends are occurring in the US. While the warmer weather of summer should decrease virus survival in the environment, detections in resident bird populations has shown that it is not only migratory birds that are a risk to poultry flocks. Therefore, it is still important

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Avian Influenza

to practice strict biosecurity throughout the summer and then especially into the Fall as migratory birds begin to move again .

Discussions that consider lessons learned through the events this year are ongoing. Plans are also underway to ensure appropriate resources are in place at CFIA for response efforts as needed.

For more information and resources available on AI including response details and biosecurity, visit the TFC On-Farm Programs Portal at www.tfconfarmprograms.ca and the CFIA website at: inspection.canada.ca/animal-health/terrestrial-animals/diseases/reportable/avian-influenza/hpai-in-canada/eng/1651075538411/1651075538958.

Producer Survey Reminder

Are you a turkey producer? We are looking for your assistance in completing a survey.

TFC is conducting a Lifecycle Assessment (LCA) of the turkey industry. We are reaching out with a request to distribute the survey to farmers in your individual provinces, in addition to in any relevant newsletters or communication pieces.

- English: <https://survey.alchemer.com/s3/6775735/ba0f018289b8>
- French : <https://survey.alchemer.com/s3/6775735/9ec4a0690a58>

The LCA of the turkey industry will help TFC to better understand and communicate the environmental and socio-economic performance of turkey production in Canada and will provide important insights for the future of the sector. Please watch for reporting on this initiative later this fall.

TFC 270th Business Meeting Notes

The Turkey Farmers of Canada's (TFC) 270th Meeting took place June 22-23 in Halifax, Nova Scotia with a hybrid model of Board of Directors and some observers joining virtually. The group enjoyed the hospitality of the Turkey Farmers of Nova Scotia (TFNS) and, we extend our appreciation to them for their efforts in organizing the meetings.

Highlights of the 270th meeting include:

- an Executive Committee report on recent activity such as a roundtable meeting with Minister Bibeau, the National Poultry Group, and the Animal Nutrition Association of Canada on the Avian Influenza situation,
- An update from Zeno on the national campaign, focusing on summer plans for the Think Turkey Campaign,
- the Turkey Market Advisory Committee (TMAC) report, which is available in full on our members' portal,
- the Turkey Market Review (TMR) was also presented highlighting, in the 2021/2022 Control Period, domestic disappearance of all turkey and turkey products was 134.0 mkg, down from 139.6 mkg a year earlier. Due to the timing of the AI outbreak amongst other reasons, 2021/2022 production came in slightly lower than planned.
- Reports were also provided with updates on On-Farms Programs Committee, Research and Communications.
- The Provincial Marketing Representatives held their first in-person meeting since June 2019. Individual provincial marketing activities were shared and brainstormed for collaborate opportunities. Zeno Group was also present and provided an update on recent and upcoming Think Turkey campaign elements and ideas were exchanged for leveraging marketing initiatives across the provinces.
 - Turkey Farmers of Nova Scotia hosted a cooking competition convened by Alain Bosse, The Kilted Chef where the marketing reps competed. The Kilted Chef cut up a whole turkey demonstrating all the possible meal opportunities from one turkey and then challenged the marketing reps to produce a winning recipe using one of the cuts.



Market Insights

The table below displays the actual Canadian and American production figures and prices for principal field crops in the 2020-21 season as well as forecasts for the 2021-2022 and 2022-2023 seasons. These are based on crop production and forecasts reports from Agriculture and Agri-Food Canada (AAFC) and the United States Department of Agriculture (USDA).

Production (1,000,000 t) and Prices (CDN \$/t) of Feed Grain and Oilseed Crops by Crop Year												
	2020-2021				2021-2022 Forecast				2022-2023 Forecast			
	Production			Price	Production			Price	Production			Price
	US	CDN	Total	CDN \$/t	US	CDN	Total	CDN \$/t	US	CDN	Total	CDN \$/t
Feed Grains												
Corn	358	14	372	\$ 272	384	14	398	\$ 310	367	14	382	\$ 330
Barley	4	11	14	\$ 294	3	7	10	\$ 435	4	9	13	\$ 400
Oats	1	5	6	\$ 301	1	3	3	\$ 560	1	4	5	\$ 500
Sorghum	9	0	9	\$ 261	11	0	11	\$ 314	10	0	10	\$ 315
Total	373	29	402		398	24	422		382	28	410	
Wheat (x.Durum)												
	48	29	76	\$ 271	44	19	63	\$ 445	46	27	73	\$ 450
Oilseeds												
Canola	2	19	21	\$ 730	1	13	14	\$ 1,100	1	18	19	\$ 1,000
Soybeans	115	6	121	\$ 605	121	6	127	\$ 670	126	6	133	\$ 650
Soybean Meal	46	1	47	\$ 477	47	1	48	\$ 511	48	1	49	\$ 487
Total	162	27	189		169	20	189		176	26	201	

Sources:

Canada: Outlook for Principal Field Crops May 2022 (AAFC),

US: Feed Outlook, Oil crops Outlook and Wheat Data (Recent) for May 2022 (USDA), USDA Agricultural Projections to 2031

Note: Soybean Meal Prices are US prices per short ton reported in CDN \$ per metric ton

Note: Numbers marked with an asterisk are carried forward from the previous period due to lack of forecast data

Continued page 5.

Market Insights

For the 2022-2023 crop season, AAFC is forecasting that carry-out stocks of all principal field crops will recover slightly from the record lows expected at the end of the current crop year. As of their June report, AAFC is expecting production increases for all principal crops compared to the heat and drought reduced harvests of 2021. As of the time of writing, production of crops grown largely on the Prairies are predicted to rebound from last year, with wheat production up by 44% to 27 million tonnes, and canola production up by 43% to 18 million tonnes. Other sizable increases are expected for this year's barley and oat crops. As most of the Canadian corn and soybean crop is in Eastern Canada, and was not affected by drought last year, production of these two crops are both expected to rise by approximately 2%. While Canadian production of feed grains, oilseeds and wheat are expected to recover, they will continue to trade at or near historic high prices due to tight global supplies brought about by the Russian invasion of Ukraine and by heat and drought stressed crops in other major growing regions.

Corn production in the U.S. for 2022-2023 is forecast at 367 million tonnes, a decrease of 17 million tonnes from last year, an amount greater than all corn production in Canada. Soybean production in the US is forecast to increase modestly to 126 million tonnes from 121 million tonnes in 2021/2022.

For the 2022/2023 crop year, these forecasts are seen as a likely scenario given current conditions. However, given the potential for erratic weather and disruptions caused by the Russian invasion of Ukraine, there is potential for prices to rise.



National Marketing Campaign

Think Turkey Campaign – 2022 is off to a Delicious Start!

In April, Think Turkey / Pensez Dindon went all-in for Easter, with a multi-channel campaign that focused on tasty, easy and innovative whole bird recipes. Easter activities included:

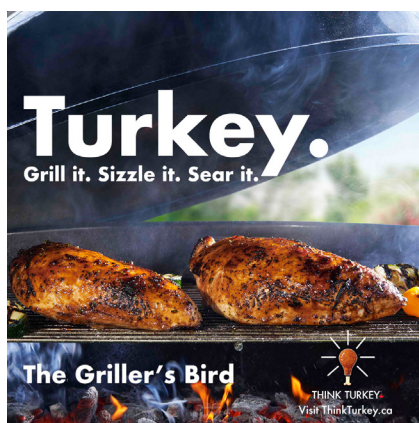
- Think Turkey teamed up with TikTok star influencers Randy Feltis and Jamie Milne to create an Easter dinner.
- BBQ experts Maddie and Kiki activated a broadcast tour showcasing their tips for cooking a turkey on the smoker.
- The campaign worked with Love Food Hate Waste, an organization aimed at educating and empowering Canadians to make their food go further and to create less waste.
- Think Turkey / Pensez Dindon's social channels showcased a variety of Easter recipes and meal inspiration, and ads directed users to ThinkTurkey.ca to explore recipe ideas and tips on how to prepare a whole bird.



Veggies Love Turkey

With Canadians eating healthier and incorporating more vegetables into their diets, Think Turkey / Pensez Dindon saw the opportunity to team up with veggies and be declared their preferred protein

In May, Think Turkey / Pensez Dindon kicked off the “Veggies Love Turkey” campaign. These commercials ran on national TV (both English and French) and on digital across YouTube, Instagram, Facebook, and Pinterest.



The Global Griller's Bird

Given its success in 2021, Think Turkey / Pensez Dindon will be reactivating The Griller's Bird campaign this summer.

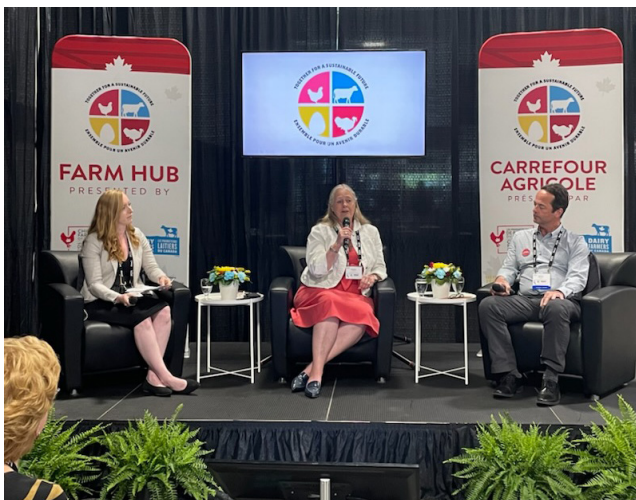
This year, the campaign will also bring global flavours featuring cuisines from around the globe and barbecue techniques under the program umbrella *The Global Griller's Bird*. The campaign launched at the end of June.

More Think Turkey / Pensez Dindon programs to come for fall.

Corporate Communications

TFC continues to work on several topics facing the industry including Avian Influenza with the national supply managed agencies. In May, the TFC Chair and senior staff met with Minister Bibeau in a roundtable format to discuss the impacts of Avian Influenza on the industry. Follow up regarding Avian Influenza is ongoing.

Federation of Canadian Municipalities Conference and Downtown Diner



TFC along with the national SM5, participated in the Federation of Canadian Municipalities (FCM) Conference from June 2-5. The SM5 had a booth at the event, which provided an opportunity to speak with Mayors, city councilors and other municipal leaders from across Canada. Farmers, including Debbie Etsell for TFC, and staff attended the event.

The SM5 had an event activation at FCM called the Farm Hub. Here attendees could learn about supply management and farming, in addition to the SM5 having three presentations during the event. TFC participated in a panel titled *Farmers Support Communities*, which had Debbie Etsell speaking for TFC and Calvin Bruekelman for CHEP, as well as Maegan MacKimmie from TFC moderating. They discussed how farmers support their local communities through the system of supply management, and how they make investments in their operations to improve and promote the sector.

The SM5 also sponsored the Big City Mayors Breakfast on June 2, which provided networking and speaking opportunities. The event saw participation by Mayors from the largest cities across Canada and was a good opportunity to discuss our industry.

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Corporate Communications

Downtown Diner

On June 9, the SM4 for the first time since before COVID, hosted the Downtown Diner event in Ottawa. This is a pop-up diner on Sparks Street in Ottawa. The Downtown Diner generates positive awareness for supply management and celebrates how supply management ensures access to fresh, local and high-quality food, coast-to-coast.

Farmers and representatives from each commodity group met with key government stakeholders, local media and members of the Ottawa public. Kathryn and Clair Doan participated on behalf of TFC.

There were over 30 MPs and a few Senators that attended the Downtown Diner event despite poor weather. This is more than attended in 2019, so we are happy with the turnout. Minister Bibeau also spent some time, as well Senator Black, several key agriculture MPs, in addition to others.



Advancing Women in Agriculture Conference

TFC participated in the Advancing Women in Agriculture Conference from June 21-22 through a student sponsorship. This provides an opportunity for an agriculture student to attend the conference. This sponsorship also included branding opportunities and further networking opportunities during the event. Maegan MacKimmie, Manager - Corporate Communications attended the event and met with the student sponsored by TFC.



Follow along with TFC on twitter at [@TurkeyFarmersCA](https://twitter.com/TurkeyFarmersCA).

Trade

World Trade Organization (WTO)

Representatives from the SM5 (TFC, DFC, CFC, EFC and CHEP) attended the WTO's 12th Ministerial Conference (MC12) in Geneva Switzerland from June 12-17, 2022. Initially scheduled to end on June 15th, the Ministerial gathering was extended by two days. During the week, the SM5 had several meetings to monitor the WTO negotiations including one with Canada's international Trade Minister the Honourable Mary Ng, who reiterated the Prime Minister's commitment that there will be no additional market access with respect to supply management in future trade negotiations.

From an agricultural perspective there were three Ministerial Declarations that the Ministers were considering heading into the Ministerial:

1. an agreement on a negotiating work program for agriculture;
2. ministerial declaration on trade and food security; and,
3. an exemption from export restrictions for purchases of agricultural commodities by the United Nations under their World Food Programme. On the latter two declarations, Ministers were successful in coming to an agreement. On the agricultural work program post MC12, no agreement was reached. This does not prevent countries from continuing the negotiations on agriculture related issues, but there will be no pre-defined priorities to address.

The round-the-clock negotiations also produced key outcomes on fisheries subsidies, a waiver of certain requirements concerning compulsory licensing for COVID-19 vaccines, a decision on the Electronic-commerce Moratorium, and WTO reform.

The MC12 Package of Decisions and Declarations for agriculture and non-agricultural subjects can be found at: [WTO | Ministerial conferences - Twelfth WTO Ministerial Conference - Documents](#).

It is expected that the next official WTO Ministerial Conference (MC13) will be held in December 2023. However, there is the possibility of an earlier follow-up conference early in 2023, to give WTO members time to discuss other highly contentious issues, such as Public Stockholding of agricultural products for food security purposes (PSH) and some remaining elements of the fish subsidies agreement.



On-Farm Programs



New TFC On-Farm Programs Edits

New edits to the TFC On-Farm Programs, dated March 2022, have been incorporated into the printed and electronic versions of the producer manuals for commercial and breeder production.

The changes are based on feedback received from producers, Provincial Boards, and auditors since the release of the new producer manuals in 2019. Most of the edits are aimed at providing additional clarification for existing program requirements.

Printed revision packages were sent to all Provincial Turkey Marketing Boards for distribution to producers and auditors in June. The updated electronic program versions can also be accessed through the TFC On-Farm Programs portal at www.tfconfamprograms.ca. The target date for the implementation of the changes is August 31, 2022.

Farmers not yet registered on the TFC On-Farm Programs portal are encouraged to do so, in order to take advantage of the fillable form functionality of the TFC On-Farm Programs, as well as other valuable information posted on this site.

CPRC

Submitted by Canadian Poultry Research Council

Food safety's a tale for the phages Century-old technology may be the solution to modern resistance issues

In the modern fight against antimicrobial resistance, one Canadian researcher is working with a promising new technology from an unlikely era: the past. Dr. Hany Anany, research scientist with Agriculture and Agri-Food Canada, is developing tools using bacteriophages or “phages,” naturally occurring, highly specific viruses to target two major foodborne pathogens. In the most recent stage of his three-year research project, Anany is developing phage-based food packaging prototypes that reduce the risk of foodborne contamination in poultry meat post-harvest.

“Phages are an old antibacterial tool that are coming back as a new tool,” says Anany. “This green technology presents a novel antimicrobial option during processing and at other points across the food supply chain to enhance food safety.”

First discovered in 1917, scientists were developing phage therapy for diverse human medical conditions. But once penicillin was discovered in 1928, many scientists turned their focus to antibiotics.

“Now that the industry faces development of antimicrobial resistance and tolerance to sanitizers, we need a different solution,” Anany says. “The use of phage-based products on foods is accepted and approved by several health agencies around the world, including the United States and Canada.”

Anany’s most recent work focuses on finding ways to incorporate phages during poultry carcass processing to control *Salmonella* and *Campylobacter* contamination. He sees potential in adding phages to the absorbent pads found under raw poultry products, to allow phages to target or “eat” specific pathogens at their source.

Where there's bacteria, there's a phage

Both phages and bacteria are living organisms that have coexisted for billions of years. Anany’s early work focused on finding phages that can specifically infect foodborne poultry pathogens, and isolating them from their natural environment. Since *Salmonella* and *Campylobacter* commonly begin in the gut, he collected fecal samples from farms to “hunt” for phages against *Salmonella* and *Campylobacter* strains associated with previous foodborne outbreaks and illness.

“Phages and their pathogens coexist, so it’s very important to hunt for the phages in the environment where we expect to find the pathogen,” says Anany.



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CPRC Update

Once he isolated dozens of phages, he used genome sequencing to examine each phage for specific traits. Anany was looking for phages that offered a broad host range, low development of resistance, good stability, and an ability to kill bacteria in a short amount of time.

Two main challenges

“Before we could rely on phages, we needed to overcome two main challenges,” says Anany. “We had to make sure the target pathogens don’t develop resistance to the phages, and we needed to ensure the phages won’t be inactivated due to disinfectant procedures in the processing environment.”

After isolating phages with the bacteria-fighting traits he was searching for, Anany combined selected phages to create a phage cocktail that would bind to different bacterial surface components to minimize the chance of resistance development. He tested the mixture in different concentrations on raw chicken and turkey skin that was inoculated with Salmonella, and found that over three days at various temperatures, the phage cocktail reduced bacteria counts without developing any phage-resistant mutants. “The more we increased the phage count, the more we saw complete inhibition of the bacteria,” says Anany.

Commercial use

While phages are not currently used in poultry production in Canada, Anany sees potential to use them as a processing aide once his phage cocktails are produced on a larger scale. “Phages are living organisms that would be destroyed by chemical and physical antimicrobial agents, so it’s important to understand at what point in the process we would use them and how we apply them,” says Anany.

The estimated cost of phage applications for poultry is one to four cents per pound, compared with 10 to 30 cents per pound for high pressure processing (HPP). Anany suggest that although it’s unlikely phages alone would replace the currently used antimicrobial technologies, it is envisioned to be used as part of a hurdle technology along with other antimicrobial approaches to enhance safety throughout the poultry supply chain.

“Phages have minimal effects on quality and sensory properties of food. We think if we wash the carcass with the phage before and after chilling step during processing, and also add it to the package, it might enhance the safety of raw poultry products over its shelf life,” says Anany.

Next steps

Anany is adding his phage cocktail to the absorbent pad underneath raw product to allow for phages to be released over the shelf life of the product. Eventually he plans to produce the pads on a larger scale to test them in an industrial setting, combining phage cocktails to allow for control of both *Salmonella* and *Campylobacter*.

Upcoming Meetings

PIC Poultry Research Impacts Day
August 10, 2022

Animal Health Canada (AHC) Forum, AGM and
Awards Reception
September 20-21

WTO Public Forum 2022 -
"Towards a Sustainable and Inclusive Recovery:
Ambition to Action"
September 27-30
Geneva, Switzerland

TFC 271st General Business Meeting
September 29, 2022
Location TBA

CPEPC Board of Directors' Meeting, CPEPC Turkey
Sector Meeting, and CPEPC Poultry Sector Meeting
October 19-20
Calgary, Alberta

TFC 272nd General Business Meeting
November 30 – December 1, 2022
Toronto, ON TBA



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