CHICKEN FARMER

Chicken Farmers of Canada Continues to Make a Splash with Canada's Swim Team

Now in year two of our partnership with Swimming Canada, Chicken Farmers of Canada continues to support Canadian swimmers from the national competitive level, right down to children learning how to swim.

In 2013, Swimming Canada proudly announced fresh Canadian chicken as the "official protein of swimming in Canada" in recognition of CFC's generous, financial contribution to Canada's most popular sport. Since then, the two organizations have realigned their image as "partners for healthy living," promoting the nutritional benefits of fresh Canadian chicken in combination with the cardiovascular benefits of swimming.

Four friendly mascots known as the "Pool Peeps" have become a popular symbol of the organizations' promotion of healthy living. The Peeps were created to encourage every Canadian child to learn how to swim and become more water-safe, fit and healthy. As part of the official partnership launch, the organizations ran a contest to find names for two of the loveable cartoon chickens. With more than 500 entries from every province in Canada, as well as the

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Northwest Territories, the Name the Pool Peeps contest was an enjoyable event for both parents and children. Profiles of the Peeps are currently featured on getswimming.ca – the new digital home of Canada's Swim Team.

Getswimming.ca is now the driving force behind the goal of becoming the World's Largest Swim Team that encourages every Canadian child to become a member and to learn to swim at least 25 metres non-stop before completing elementary school. Since the launch last year, 2,000 members have joined with new members signing up daily. CFC has been supporting this health and safety initiative by sponsoring the Team Kitchen – a digital page within the site. Team Kitchen was designed for swimmers – and all Canadians – who are looking for healthy recipes, nutrition information, and How-to-Videos. You can find out "What's Cooking at Team Kitchen" monthly by visiting getswimming.ca.

Swimming Canada and CFC are also jointly hosting a Swim Parent of the Month contest in recognition of parents who encourage eating well and being active as part of a healthy lifestyle. Are you a Swim Parent? Details of the contest and rules are located at getswimming.ca. Enter the contest by the 21st of every month for a chance to win a prize and be recognized as a Swim Parent hero! Profiles of our Swim Parents and their favourite chicken recipes will be featured in a downloadable, digital cookbook at chicken.ca in December and promoted by both organizations through social media.

CFC continues to provide branded materials and messaging to Swimming Canada as required for use within specific campaigns, including PSAs, video ads, recipe booklets, promotional stickers of the Peeps, & exhibits for major swim events, such as the Canada Cup, Pan Pacific & Commonwealth Games. This provides us with great visibility at competitive meets and competitions involving Canadian and international swimmers.

Partnership activities will continue in 2014 to include consistent brand recognition throughout all communications and events. As this year will mark the end of CFC's two-year sponsorship of Swimming Canada, our goal is to explore new ways to benefit each other through a longer-term partnership.

About Swimming Canada

Swimming Canada serves as the national governing body of competitive swimming. They inspire Canadians through world leading performances to embrace a lifestyle of swimming, sport, fitness and health. The federation comprises 75,000 members and 400 swim clubs across the country. Canadians are global leaders in high performance swimming and development for both able-bodied swimmers and swimmers with a disability. **C**F

Recent Research on Lighting Programs Highlights Ways to Improve Broiler Performance and Welfare

The use of constant or near constant, but low, levels of light has traditionally been thought to maximize broiler growth by allowing unlimited visual access to feed and water. However, recent research contradicts this claim and has found that optimal growth and feed efficiency is achieved between 17 and 20 hour day lengths.

As part of the Code of Practice revision, a Scientific Committee has reviewed research on a number of areas related to broiler welfare. The full report is available from the National Farm Animal Care Council's website at www.nfacc.ca/ resources/codes-of-practice/ chickens-turkeys-and-breeders/ Poultry_SCReport_Nov2013.pdf, and includes a section on lighting programs. Karen Schwean-Lardner and Hank Classen of the University of Saskatchewan have done a number of studies on lighting programs for broilers, and their work is included in the Scientific Committee report.

Light intensity

Light intensity does not impact growth, feed conversion ratio or mortality levels, but does influence behaviour. It was found that broilers raised under 1 lux light intensity showed more resting and less preening behaviour than broilers raised with 10, 20, or 40 lux, potentially indicating reduced welfare at 1 lux. Rearing birds at low light intensities can result in interrupted resting bouts and a lack of obvious resting and wakeful periods. A lack of sleep has many negative consequences on bird welfare including reduction in alertness and productivity, increased stress levels, and reductions in neural activity and health. Broiler chickens prefer bright light (200 lux) at 2 weeks of age, and while this preference

is diminished by 6 weeks of age, bright light is still preferred for behaviours other than resting.



Day length

Mortality rates increased with increasing day length and some work has shown that leg abnormalities may also increase. Providing 14 or 17 hours of light per day slows growth early in life, but it has been found that these birds show compensatory growth after 3 weeks of age, so that final body weights are equal to or heavier than birds raised with 20 or more hours of light. As birds age, they adjust their feeding behaviour to compensate for longer dark periods and feed efficiency is improved in birds raised under 14 hours of light compared to birds raised under 17, 20, or 23 hours of light. As day length increases from 14 to 23 hours, less time is spent performing comfort behaviours such as preening and dust-bathing, potentially indicating reduced welfare with longer day lengths.

Light source

We know comparatively less about the effect of the light source on broiler performance and welfare than we do about light intensity and day length. However, researchers found that rearing broiler chickens in cool light (blue to green range) compared to warm light (orange to red range) may improve some aspects of health and production such as growth rate and immune function. Research comparing the direct influence of incandescent, fluorescent, biolux, and LED light sources on productivity and welfare has been inconclusive

One concern about providing a longer dark period may be the increased activity seen during the light period, and potential for crowding at the feeders before the lights go out and right after they come on. Increased activity during the light period is a positive thing in terms of animal welfare. This indicates that the birds are able to gain restorative sleep and are healthy enough to be active. The use of a dawn to dusk system is excellent for dealing with crowding at the feeder, if it is ever a problem. Having the lights come on or go off over a period of 30 minutes, for example, allows the flock to wake up gradually and go to sleep gradually and so not all birds will attempt to feed at once. Even if crowding at the feeder is not an issue, a dawn to dusk system is beneficial and should be used whenever possible. **(**F



Chicken and Other Meats: What the Retail Market Data Says

Chicken remains competitive and has seen growth in recent months. Retail market data shows that this profitable growth will continue in the future as well.

While all meat producers are currently witnessing low feed costs, chicken is benefitting the most from strong demand and consistent production volumes. This stability in the chicken market means prices continue to be steady for consumers, industry stakeholders, and producers alike.

Chicken

In terms of both volume and dollars, chicken holds the greatest retail market share of fresh meat in Canada: 34.5% in volume and 33.3% in sales dollars, and this is growing. Year-to-date July 26, 2014, the volume of chicken retail sales across Canada was up 5.2% over the same period last year and 8% over the same period two years ago, according to Nielsen Market Track scanner data. Retail sales dollars are up 6.8% over the same period last year and 11% over two years ago.

Some of the factors propping up strong retail growth include declining feed prices, chicken's increased competitiveness in the fresh meat market, and positive wholesale prices. Feed prices have been declining and are expected to continue their downward trend due in part to a glut of corn supply.* The U.S. Department of Agriculture (USDA) is currently forecasting more than 14 billion bushels of corn to be harvested in marketing year (MY) 2014/2015, which would break last year's all-time record and potentially bring about the lowest prices since 2009 for corn. According to the August World Agricultural Supply and Demand Estimates (WASDE) Report produced by the USDA, the season average corn price in the United States for MY 2014/2015 is forecast at \$3.55 to \$4.25 per bushel, down from an estimated \$4.40 to \$4.50 per bushel in MY 2013/2014. (The price of corn and soybeans in Canada generally follow world price trends as established on the Chicago futures market.)

The positive feed outlook extends to soybeans as well. According to the August WASDE Report, U.S. soybean production in MY 2014/2015 is forecast to reach 3,816 million bushels, up 16 million due to a higher yield. The season average soybean meal price in the United States for MY 2014/2015 is forecast at \$340 to \$380 per tonne, down from an estimated \$470 per tonne in MY 2013/2014.

In part because chicken prices are more dependent than other livestock prices on the price of feed grains, the chicken sector will gain the greatest advantage from these relatively low feed prices. (ie. The time necessary to expand a broiler flock is nearly instantaneous, when compared to cattle and pork.) This cost advantage translates into grocery shelf prices that have increased very little in comparison to beef and pork prices. In the last 52 weeks ending July 26, 2014, retail chicken prices have increased by 1.96% over the same period a year earlier, according to Nielsen data. By comparison, pork prices have increased by 6.47% and beef prices by 6.24%.

*While farmers are experiencing an era of lower commodity prices, corn and soybeans are still about twice as high as they were before 2006.



Chicken is benefitting the most from strong demand and consistent production volumes.

In addition to falling input prices, chicken is also benefitting from hardships felt in the beef and pork sectors, as outlined in the sections below. This has the effect of further increasing chicken's competitiveness in the fresh meat retail market.

Pork

Year-to-date July 26, the volume of pork sales were down 6.6% over the same period last year and retail sales dollars were up 2.8%, according to Nielsen retail data.

Statistics Canada says that, despite a slight increase in Canadian hog inventories at July 1, 2014, total North American supplies fell to their lowest level for this period since July 2003. The outbreak of porcine epidemic diarrhea (PED) virus, particularly in the United States, continues to affect inventories.

Pork may become more competitive as supplies increase due to the year-long Russian ban of agricultural imports from Canada (and other countries). It's expected to affect the Canadian market for the next few months until other markets are found. Sales of pork to Russia were \$260 million in 2013, down from almost \$500 million the year before. It has been reported that approximately 10,000 tonnes were in transit when the ban was enacted, but that this shipment will likely be diverted to Asian buyers.

Beef

Year-to-date ending July 26, the volume of beef retail sales were down 6.2% over the same period last year, according to Nielsen data. Retail sales dollars are up 3.7%.

Statistics Canada says that low inventories stemming from two years of drought in the United States continue to contribute to higher prices. As of July 1, 2014, Canada's beef cow herd remained at its lowest level since 1992, while the United States' beef cow herd was at its lowest level since the July 1 series began in 1971. Slaughter numbers are also low, supporting high retail prices.

As previously mentioned, retail beef prices have increased 6.24% in the last 52 weeks compared to a year earlier – and some livestock analysts believe that there are more hikes to come.

According to analysts, retail is not passing along the whole effect of low inventories and higher costs yet, choosing instead to absorb lost profit. Not only are retail beef prices expected to increase further, but they're expected to remain high until beef cow herds return to pre-drought levels. Bringing herds to pre-drought levels could take years. It takes 14 to 16 months to raise a calf to slaughter size. By comparison, it takes only 6-7 weeks to bring a broiler chick to slaughter, and 24-26 weeks to bring a pig to slaughter.

In sum, chicken's competitiveness in the fresh meat retail market is expected to continue to grow, as market conditions for fresh chicken have improved compared to earlier in the year and the medium term underlying market factors for 2014 are positive. (F

Canadian Retail Meat Data: Last 52 weeks ending July 26, 2014 Chicken/Poulet Beef/Boeuf Turkey/Dindon Pork/Porc Other/Autres

(Change over the same 52 weeks last year is in parenthesis)

Source: Nielsen Market Track

News From the Hill

Annual Parliamentary Reception

The Annual Parliamentary Reception for Members of Parliament, Senators, Political and Department staff as well as industry partners is being held in the Drawing Room of the Fairmont Château Laurier on November 19 from 6 to 9 PM.

At the reception, CFC is planning to air videos highlighting facts and figures about the Canadian chicken industry and some of our key messages. We will have two different infographic videos, as well as our animated commercial and video. Our scaled model chicken barn and accompanying poster which demonstrates how our birds are raised will also be on site to help give guests some insight into the workings of a chicken barn.

The reception is always an excellent opportunity for CFC directors, alternates, provincial board managers, and CFC staff to communicate our key messages on important topics which include:

- The economic contributions the Canadian chicken industry and supply management
- Import controls
- Spent fowl
- International and domestic trade
- Food safety
- Animal care
- Corporate social responsibility

Looking Ahead

The House resumed sitting the week of September 15th, following a three month summer break. Senior government ministers have been busy over the summer, announcing new infrastructure and science-based research programs.

Moving into the fall session of Parliament, the Harper government is expected to stay the course on the economy, continuing with its ambitious pro-trade agenda, family values, and getting tough on crime.

What's Happening in Committees

HOUSE OF COMMONS STANDING COMMITTEE ON AGRICULTURE AND AGRI-FOOD

The House of Commons Standing Committee on Agriculture and Agri-food is expected to begin seeing witnesses on Bill C-18, Agricultural Growth Act, in late September, early October.

> The Canadian Federation of Agriculture (CFA) has put its name forward as a potential witness for the bill and will be commenting on this extensive piece of legislation. The CFA will update members further as committee meeting dates are set.

The Agricultural Growth Act was introduced at the end of 2013 by the Minister of Agriculture and Agri-Food, the Hon. Gerry Ritz. It has passed 2nd reading in the House and is now heading to the committee.

The Agricultural Growth Act is a bill designed to modernize and strengthen federal agricul-

ture legislation, support innovation in the Canadian agriculture industry and enhance global market opportunities. The bill proposes changes to the suite of statutes that the Canadian Food Inspection Agency (CFIA) uses to regulate our agricultural sector:

- 1. Plant Breeders' Rights Act (PBR Act)
- 2. Feeds Act
- 3. Fertilizers Act
- 4. Seeds Act
- 5. Health of Animals Act
- 6. Plant Protection Act
- 7. Agriculture and Agri-Food Administrative Monetary Penalties Act

The bill also amends the Agricultural Marketing Programs Act (AMPA) and Farm Debt Mediation Act (FDMA) which fall under the purview of Agriculture and Agri-Food Canada (AAFC).



2014 World Poultry Map

The 2014 Rabobank^{*} World Poultry Map shows a growing global poultry trade market valued at \$17.9 billion (US). Chicken meat has become the world's most wanted protein, counting for 40% of the global meat trade. Poultry trade volumes have been growing by 6.5% per year between 2000 and 2012, which is well above the 3.5% for all meats over the same period.

Growth in the market is majorly attributed to Asia and increasingly to Africa and the Middle East. The poultry market can be split into four main categories: whole birds (\$3.6 billion), dark meat (\$9 billion), white meat (\$2.3 billion), and processed chicken (\$3 billion). Each one of these categories is accompanied with its own dynamics as each type of meat serves varying preferences around the globe.

White meat, for example, is in high demand in the western markets and Japan, while other parts of the world including Asia and Africa, have strong preference for dark meat. Rabobank projects a faster market growth in Asian markets, where dark meat is preferred, than in the EU and U.S. markets. This shift in demand will inevitably affect the global pricing for poultry cuts; meaning that prices of dark meat products will likely increase faster than white meat prices, putting white meat markets under pressure.

The changing global balance of white and dark meat is a big challenge for the industry and will create new trade streams. Asia, with its excess supply of white meat (which is considered low-value meat in most Asian countries) will look to export these cuts in order to make more room for more imports of dark meat. Asian countries also have a strong competitive position in processed chicken, thanks to the availability of low-cost labour meaning that they will also be looking to increase their share of exports in that segment as well. This is already happening in sizable volumes in both the EU and the U.S. which could in particular become a large importer for these products if their markets ever open up.

The global whole bird market on the other hand is very concentrated to the Middle East, which lands about 90% of world exports. The relatively open attitude to imports in the region has made whole birds the fastestgrowing trade segment in the world poultry market. Countries with low production costs such as Brazil or with proximity like Turkey and the EU have been able to benefit from this rapid growth. The EU however, is currently losing market share as the European Commission's recent abolition of export subsidies has resulted in the loss of its competitive edge against competitors.

The export market is very concentrated with Brazil owning 65% of whole bird exports to the Middle East, but local governments are showing a desire to become less dependent on a single supplier. This desire has become an opportunity for other cost-effective producers such as the U.S., Russia, and the Ukraine to increase their exports to the region. Chicken meat has become the world's most wanted protein, counting for 40% of the global meat trade.

Rabobank believes that the industry will continue to change significantly over the next few years. The shift in trade balance, combined with predicted growth of more than 30% in the next decade, is likely to shake things up. Restricted by their slow economic growth, the EU and the U.S. are expected to experience slower industry growth – leaving room for other major players including Brazil and Argentina and potential newcomers such as Ukraine and Russia to take on most of the global market growth.

*Rabobank is a Dutch multinational banking and financial services institution and a leader in agri-food financing and sustainability banking.

Consumer Food Safety Behaviour

FightBAC, the American partnership for consumer food safety education, held a webinar late this summer. The topics were a U.S. campaign called "Don't wash your chicken" and a project on research into consumer food safety behaviour in the home.

The guest presenters were Dr. Jennifer Quinlan, an associate professor in the Nutrition Sciences Department of Drexel University, and Dr. Christine M. Bruhn, a specialist in cooperative extension at the University of California (Davis).

Don't Wash Your Chicken

Dr. Quinlan's research focuses on identifying food safety risks for minority and low income populations. Her work uses focus groups and surveys to explore differences in handling of food by consumers from different demographic groups. Through her research she identified the common practice of incorrectly washing raw poultry by consumers of ALL demographics which lead to the "Don't Wash Your Chicken" campaign. The focus group research behind "Don't Wash Your Chicken" was published in the Journal of Food Protection and the research regarding the larger survey is under peer review currently.

During the presentation, Dr. Quinlan reported on the focus group and survey findings, while providing some anecdotal references to the listeners. She referenced studies and research from other findings in Europe and Australia.

Dr. Quinlan reported that consumers from all demographics continue to wash their poultry, despite being told for years that it was a bad practice. Responses included: I just thought I was supposed to; I wanted to remove the blood or stickiness that was on the chicken; and I felt there was processing residue that needed to be removed prior to cooking. Most consumers were not aware that washing poultry was an incorrect behavior.

"While feedback has been that some consumers have been happy to stop the practice of washing raw poultry once they heard the message, it's clear that there are barriers for other consumers to not wash raw poultry," said Dr. Quinlan. "Now that the message of not washing raw poultry has become part of the discussion and more widely disseminated, we believe there is a need for more research to better understand the barriers for those consumers who are not accepting of the message and determine how to tailor additional consumer education messages to address those barriers."

Safe Food Handling in the Home

Dr. Bruhn then spoke about their observational study work, specifically of people preparing chicken and salad. Their manuscript was to be published in the September/October issue of Food Protection Trends published by the International Association for Food Protection. The web page is www.foodprotection.org.

There were three essential points of interest for health educators as a result of their observations:

- 1. People have heard of salmonella and are aware that chicken is a source, but they believe themselves to be very or completely knowledgeable about how to prepare chicken, and only 20% believed their family could become ill from chicken prepared in the home. So they don't realize they could improve their handling practices.
- 2. People didn't follow recommended hygienic practices: 64% didn't wash hands before starting meal preparation, 38% didn't wash hands after handling raw chicken and before touching other services and onethird of hand washing used water only. While they didn't follow hand washing practices, 47% washed their chicken, a practices that is not recommended.
- 3. People undercooked their chicken. Although the chicken looked adequately cooked, 40% of the chicken registered below the recommended 165°F (74°C). Of those who grilled, 52% undercooked with an average of 18°F below 165°F (147°F, or 63°C).

The study included volunteers that were recruited through an interview in the mall. The food preparer must serve chicken to their family and not be currently employed in the food or medical industry. Thirty volunteers each from Los Angeles, San Francisco, Portland, and Seattle were selected to reflect the ethnic diversity of these areas.

People were videotaped in their home preparing a chicken dish they normally serve and either a fresh green or fruit salad. Two video cameras were set up in the home, one capturing a view of the kitchen and the other hand held by the researcher who followed the food preparer outside if the chicken was barbecued.



When the preparer declared the chicken cooked the researcher took the chicken temperature with a Fisher Scientific Thermometer. In some cases a household thermometer was also used to take the chicken temperature. Finally the researcher asked the food preparer questions about food safety and chicken handling.

One of the key findings of the study was that consumers are very aware of food safety issues, yet do not follow recommended food safety practices when preparing their own meals at home. In some cases, the disconnect occurs because people don't immediately become ill when they do something wrong. Most people believe their illness is caused by something they ate at their last meal. They don't realize that symptoms from pathogens like salmonella, e-coli, and listeria take time to develop.

According to Dr. Bruhn, one of the most surprising findings was about the meat, rather than the behaviour: "I was shocked that chicken can look fully cooked and not register 165°F (74°C). I have started using a thermometer in my own home, even when I stir fry thin chicken pieces. I was also surprised that the reading on home thermometers sometimes differed significantly from that on the Instant Read Fisher Scientific thermometer. Consumers were not aware that dial thermometers could be calibrated and some were 30 or more degrees different from the Fisher Scientific thermometer. Our food safety messages need to stress that even with chicken, you can NOT rely on appearance. Use a thermometer and calibrate it frequently."

In her closing, Dr. Bruhn provided some advice to help turn around some of the behaviours found during the observations.

- 1. Wash your hands, especially after handing raw meat or chicken. Everything you touch can spread bacteria. Imagine chicken is covered with honey, touch it, then your refrigerator door, your spices, or your cell phone, you spread the honey. You've got to wash to stop the stickies!
- 2. Don't wash you chicken. Bacteria could splatter with the water and can spread as an aerosol. Cooking kills the bacteria. Go straight from package to cooking.
- 3. Use a thermometer to be sure your chicken is cooked. Appearance is not reliable. Chicken cooked to 165°F (74°C) is still moist, and it is also safe. **(**F





Chicken Farmers of Canada & Eggs Farmers of Canada Unite for Heart & Stroke Research

On August 20th, Chicken Farmers of Canada (CFC) was part of a movement that is making a difference to the heart health of Canadians. Seventeen staff members challenged their poultry friends from Egg Farmers of Canada (EFC) in a Big Bike race to raise money for the Heart & Stroke Foundation. This fundraiser was a collective team effort made up of enthusiastic riders with each committed to raising \$50 or more in support of heart and stroke research.

The Heart & Stroke Big Bike event takes place annually in over 200 communities with close to 70,000 participants. Last year, riders from across Canada helped raise over \$8.4 million to provide Canadians with the tools, resources and initiatives to reduce controllable risk factors of heart disease and stroke. The goal this year is \$9.5 million and they are 40% of the way there!

As a highlight of the 21st Big Bike race in Ottawa, CFC and EFC added a fun twist to the competition by challenging one another to shed some light to the ongoing question as to which came first: the chicken or the egg? A driver was provided by the Foundation as riders from each team pedaled with full gusto around the Rideau Carleton Racetrack for the fastest time.

CFC was first out of the blocks and set a track record for the Big Bike with a time of 3:06:50. Organizers were excited and the team was gathered for a shot with the trophy, just in case. The glory was short-lived. About 3:03:94 later, the EFC team powered their way around the track and surpassed the CFC team for Big Bike supremacy. While it was a very close race, EFC, racing 2nd, put an end to the age-old mystery and came in first.

Though CFC graciously accepted defeat coming in less than 3 seconds behind EFC, staff proudly raised \$1,400 dollars in an effort to help Canadians live longer, fuller, healthier lives. **(**F



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