



THE CHICKEN FARMER

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Lessons from South Africa

Nearly half of South Africa's small chicken producers have gone out business in the past year due in part to increasing feed costs but mainly, according to the South African Poultry Association (SAPA), because of a surge of imports from Brazil, the United States and the European Union. These imports, which reached 520 million kilograms in 2018, represented the equivalent of 28% of domestic consumption. For 2019, imports are projected to increase another 5% to 545 million kilograms.

In 2018, South African demand for chicken was 1.9 billion kilograms; however domestic chicken production was only 1.4 billion kilograms in large part due to a 5% increase in feed costs brought on by poor weather conditions.

While 16% of 2018 imports came from the United States and another 12% were from the European Union, a whopping 61% of imports came from Brazil. According to SAPA, the volume of Brazilian imports outnumbers the output of even South Africa's biggest producer.

Frozen bone-in portions represent the largest share of imports, about 55%. In 2014, 221 million kilograms of frozen bone-in parts were imported into South Africa; by 2018 this volume had grown to 383 million kilograms, an increase of nearly 60% in four years.

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SAPA is requesting that the South African government increase the applied import tariff on chicken meat imports from 12-37% to a flat 82%, which is their World Trade Organization (WTO) bound rate tariff, the highest tariff they are allowed to impose based on their commitments at the WTO. Izaak Breitenbach, General Manager of the SAPA's broiler organization, has stated, "The relentless surge of imports illustrates the need for the government to step in and protect

the local industry and the thousands of jobs involved. We are an efficient industry, but we cannot compete against imports dumped at below the cost of production, or from countries with a long history of agricultural subsidies."

This situation highlights the realities of the global chicken market and the importance of maintaining Canada's supply management system for chicken. By setting the producer price to reflect the cost of production, the

system ensures that farmers do not suffer income losses from feed price fluctuations. By setting production levels, producers are positioned to fulfill domestic demand while still respecting Canada's trade obligations. And by maintaining effective import controls, the system prevents the dumping practices of major chicken exporters such as Brazil, the United States and the European Union, from damaging the Canadian chicken market and the Canadian economy.



CFA Update



The Canadian Federation of Agriculture met for three days at the end of October to discuss emerging issues in the sector. The meeting focused on the immediate future as CFA prepares to work with the new Liberal minority government, and the board dove into post-election government outreach strategies, including ways to ensure western Canadian farmers' voices are heard. Newly elected MP and former CFA Board Director Dan Mazier stopped by to discuss the political landscape coming out of the election.

Board members received updates on various subjects including:

- » Mental health programs and research
- » Business Risk Management programs
- » International trade update from Agriculture and Agri-Food Canada officials
- » Animal activists and trespassing issues
- » Public Trust update from the Canadian Centre for Food Integrity
- » Producing Prosperity in Canada campaign and the outcomes from the Agriculture Leaders' debate



Hill Watch



Federal Election Results


The 43rd Canadian general election was held on October 21st, 2019. The outcome of this election saw the Liberal Party of Canada secure a second term in government. However, this time, they will be governing with a minority government as they won 157 seats, 13 seats shy of the required 170 needed for a majority. The Conservative Party of Canada will form the Official Opposition with 121 seats, while the Bloc Québécois picked up 22 seats to bring them to 32 in total. The NDP were left with 24 seats, the Green Party won 3 seats, and former Liberal MP Jody Wilson-Raybould won her seat back as an independent.

There were some surprises on election night such as the change of the balance of power in the House of Commons with the Bloc retaining third party status and knocking the NDP to fourth. The loss of long-term Saskatchewan MP Ralph Goodale and Conservative deputy leader Lisa Raitt in Ontario made for some upsets as well. The Green Party elected its first MP from outside of British Columbia, with the victory of Jenica Atwin in Fredericton. A strong sense of regionalism emerged during the election, with the almost-Conservative sweep from Winnipeg to the lower mainland in BC. This

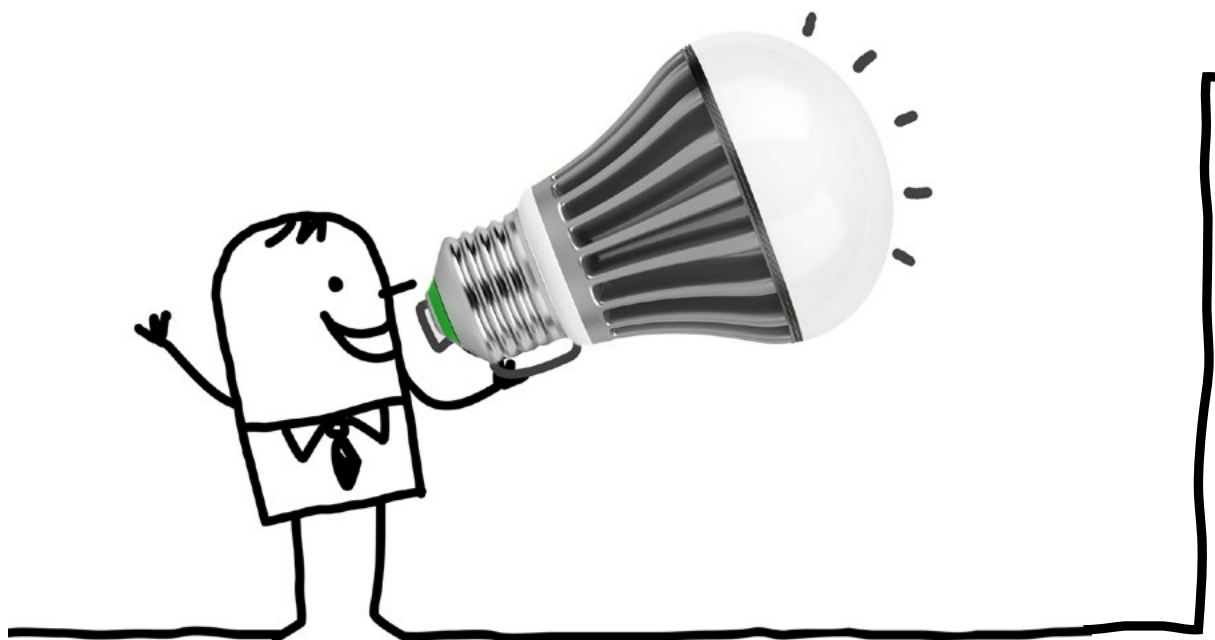
was further apparent with the formation of a new Senate bloc of 11 senators following the election, calling themselves the “Canadian Senators Group” (CSG). The CSG formed as part of an effort to ensure that regional interests would be properly represented in the Senate.

Prime Minister Justin Trudeau named his new cabinet on November 20th. Chicken Farmers of Canada looks forward to once again work alongside returning Minister of Agriculture and Agri-Food, Marie-Claude Bibeau; returning Minister of Finance, Bill Morneau; Minister of Middle

Class Prosperity and Associate Minister of Finance, Mona Fortier; Minister of Small Business, Export Promotion and International Trade, Mary Ng; Minister of Health, Patty Hajdu; Minister of Public Safety and Emergency Preparedness, Bill Blair; and Deputy Prime Minister and Minister of Intergovernmental Affairs, Chrystia Freeland.

Chicken Farmers of Canada will be reaching out and connecting with the new and re-elected MPs, and the new Cabinet after the House of Commons convenes on December 5th with a Speech from the Throne. 

Better Be



lighting boosts layer productivity

When poultry researcher Grégoy Bédécarrats discovered the effect of LED spectrum lighting on laying hens, he set about to create a new light bulb as a way for producers to improve productivity and reduce energy costs. He knew there was solid science behind the use of red spectrum lighting in particular to improve egg production and reduce feed consumption in layer operations, plus the bonus of decreased electricity costs from a more energy-efficient bulb.



Researcher Grégoy Bédécarrats (right) and graduate student Mikayla Baxter with custom-designed LED lightbulb that improves egg production and reduces feed intake and energy use.

That's when Bédécarrats – a professor in the Department of Animal Biosciences at the University of Guelph – partnered with a local electrical manufacturer to design and develop a custom-made spectrum LED light system and tested it with a commercial flock in Ontario over a two-year period.

The results were quite clear. The new LED 10W bulbs use 80% less electricity than 60W incandescent, and 33% less than 15W compact fluorescent bulbs. And the red spectrum improved laying production and reduced feed consumption without any negative impact on egg quality or bird health and welfare.

But science alone wasn't going to sell this new system. "The price of the LED bulb is more than other less energy-efficient options, and even when we showed the production benefits, it seemed we needed something more to sell this system," says Bédécarrats. And while energy efficiency was one of the drivers behind his research project on LED lighting, it didn't turn out to be what's selling the commercial system to Canadian poultry operations.

BUILDING A BETTER BULB

Bédécarrats completed a three-year research project to validate the use of new LED red spectrum lighting for egg layers in 2014. As the project ended, he and collaborator Alex Thies of Thies Electrical Distributing Co. in Cambridge, Ontario had received full CSA approval on the newly-branded AgriLux™ LED spectrum light.

“Alex was in the business of electrical engineering and we worked together to develop the bulb from scratch, based on what we have learned about spectrum lighting,” says Bédécarrats. “We were the first to bring spectrum lighting into commercial laying operations and show that it actually worked.” Together, they created a very specific product for layers and needed marketing to show the benefits to producers.

Their collaboration brought the LED lighting research full circle. Bédécarrats knew the value of LED spectrum lighting for poultry production. Thies knew how to build the new LED light to fit the exact specifications that would produce the results in the barn.

The resulting, commercial LED bulb for poultry farms – the first of its kind in Canada – contains a unique and specific mixture of red spectrum lighting, and the prototype was perfected to be dimmable without any loss of output, and withstand harsh barn conditions where it could be repeatedly pressure washed without any damage.

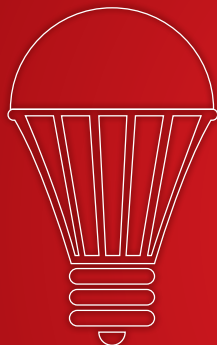


Alex Thies of Thies Electrical Distributing, the exclusive distributor of the AgriLux LED lighting system in Canada.

MARKETING MADE THE DIFFERENCE

With positive results in hand from testing the bulb on commercial farms, the next step became marketing the LED bulbs in a way that mattered to producers. “If we simply marketed the new LED bulb on a per piece basis, it wouldn’t tell the whole story,” says Thies.

Thies connected with a marketing company to bring in extra expertise for the new trademarked LED bulb. The result was to position the bulbs, with all the associated benefits, as a complete LED lighting system. “We do promote the energy efficiency aspect but it’s not the top of mind for most customers so we take it out of the ROI discussion,” says Thies. He



LED spectrum lighting can increase revenue by up to **\$1*/hen/year**


*60% from increased egg production, 40% from decreased feed consumption

Poultry Science Cluster



Grappe de la science avicole

*60% from increased egg production, 40% from reduced feed consumption.



estimates about 25% of his customers switched to LED from incandescent lighting, but most were already using compact fluorescent to save on energy.

The LED system comes with the impressive possibility of significant bottom line returns. And the biggest impact the red spectrum lights have is on egg production. “That’s why we have positioned AgriLux as a way to improve productivity with better lighting,” says Thies. “We estimate the increased revenue at up to \$1 per hen per year.” About 60% of the increased revenue is attributed to the increase in egg production that comes from LED red spectrum lighting. The other 40% is the savings on feed because the birds are eating less feed.

“Together with optimum barn management, we have customers that are getting up to five more eggs per hen on a production cycle and saving 3 g of feed per day per hen,” says Thies. “If we added in energy savings – and are switching a barn from incandescent to LED – you would also save about 80% of your electricity costs.”

Numbers like those are driving the AgriLux business with 40 poultry farms across Canada that have installed the LED bulbs since they first hit the market. The bulk of their business is currently in Ontario, with 26 farms – layers, broiler, broiler breeder and turkey breeder operations. The rest are in Manitoba, Saskatchewan and Alberta, and the majority are layer farms.

Some of Thies’s customers are feeding him results after the LED lights have been installed. He says any operation related to egg production is seeing the benefits from switching to red spectrum LED lighting. “And we are typically seeing a return on investment for the new LED spectrum lighting system in laying barns within 9-12 months.”

A SIMPLE SWITCH

Switching to the LED spectrum lighting is a simple retrofit. Thies and his company do a barn assessment to see if it’s a simple switch out of bulbs and the addition of a dimmer. “If barns are wired to 10 ft centres and lighting that is about 7-8 ft high, it’s a simple retrofit. If electrical fixtures are in place, an upgraded dimmer is installed that is compatible with AgriLux LED lights in order to get the best performance from the LED lights,” he says.

Thies Electrical is the exclusive distributor of the AgriLux system in Canada, and there are currently no other Canadian companies marketing LED spectrum lighting for poultry. Thies have two different LED spectrum lighting systems – the red spectrum used in laying operations that impacts egg production, and the green spectrum lighting that impacts growth and muscle development.

BONUS BIRD-CALMING EFFECT

There’s another benefit to the new lighting that is harder to quantify. Birds under LED lighting appear to be more calm. “When you walk into a barn, the birds do not get excited or nervous. They are more relaxed and more productive,” says Thies.

On the broiler side, Thies says farmers are seeing an added benefit with the green spectrum lighting. They are seeing decreased mortality and condemned rates. He believes it’s because the green spectrum LED lights promote muscle growth. “What I’m hearing from customers is that the birds carry their weight better and are generally healthier,” he says.

Thies is growing the LED market segment, with his sights set on capturing 5% (240 farms) of the poultry lighting business in Canada, and expanding into the U.S. market. Recent seed funding from Bioenterprise has helped him improve sales and marketing materials for the AgriLux brand. Bédécarrats is looking to continue investigating LED lighting with breeders. “You don’t see a boost in egg production with breeders in LED spectrum lighting, but there is good potential to boost fertility,” says Bédécarrats.

Funding for Bédécarrats research on LED spectrum lighting was part of the Poultry Science Cluster 2 – delivered through the Canadian Poultry Research Council – supported by Agriculture and Agri-Food Canada as part of Growing Forward 2, a federal-provincial-territorial initiative. His work was also supported by the Poultry Industry Council and in-kind contributions from Thies Electrical Distributing. 

In-barn hatching

CFIA Regulations require all facilities have permits

The practice of hatching broiler chicks on the farm has been a growing trend in Europe and now seems to be gaining interest here in Canada as well. There are documented benefits of this practice but also some important regulatory implications in Canada to consider before investing in this new technology.

As described in a recent article in Canadian Poultry Magazine, the benefits from in-barn hatching stem from immediate access to food and water, and include improved welfare, lower mortality, and better gut health and footpad health. It also eliminates the stress of transport for day-old chicks.

Chicken Farmers of Canada (CFC) along with the Canadian Hatching Egg Producers (CHEP) and other industry members recently met with the Canadian Food Inspection Agency (CFIA) to understand how the federal Hatchery Regulations impacts the practice of in-barn hatching.

CFIA has since issued a **notice to industry** explaining that under the current regulations a hatchery is defined as any place where eggs are incubated or chicks are hatched, such that any barns hatching eggs would be subject to all the regulatory requirements of a hatchery.

Of note, individuals must obtain a permit to operate a hatchery from CFIA before hatching eggs on farm. This involves providing an application to CFIA and a full review being conducted.

Any farms considering in-barn hatching are encouraged to thoroughly review the regulations and legal implications/ requirements of hatching birds on the farm. The requirements for hatchery data reporting should also be considered, and are important for CHEP to be able to monitor production and marketing. Farms should be liaising with their hatchery and either CHEP or their provincial hatching egg board to better understand these requirements.

ANY FARMS CONSIDERING IN-BARN HATCHING ARE ENCOURAGED TO THOROUGHLY REVIEW THE REGULATIONS AND LEGAL IMPLICATIONS/ REQUIREMENTS OF HATCHING BIRDS ON THE FARM.

The hatchery regulations have been under review for some time and industry will be working with CFIA to take this new technology into consideration. The proposed amendments are anticipated to be pre-published in *Canada Gazette*, Part I, for public consultation in winter 2020. **CF**

