

BC BROILER HATCHING EGG COMMISSION

MARCH 2020 NEWSLETTER

INDUSTRY STATISTICS

YTD Hatchability

83.3 %

Average Lay Cycle End

56 weeks

Average Breeder Price

Female: \$10.45

Male: \$14.04

2020 Audit Stats

Total Premises to Audit: 56

Premises Completed: 10 / 56

Hatching Egg Tip

Please see the attached link on the importance of a fully comprehensive cleaning and disinfection program

https://www.cobb-vantress.com/en_US/articles/house-hygiene-cleaning-and-disinfection-for-success/

YELLOW BIOSECURITY ALERT

Please see the attached alert from Christine Koch, Manager, BC Poultry Association

ON-FARM TEAM UPDATE

Emma Lewis has been hired as the On-Farm Program Technician. Expect her to be shadowing Kaitlyn on all upcoming on-farm appointments.

ANIMAL CARE PROGRAM TRAINING

If you or a staff member could not attend the Animal Care Program training in 2019 or would like a refresher before your initial audit there is another training session being held on **March 11 at 10 am** at the Commission office. Aubrie Willmont-Johnson, the Animal Welfare Officer for CHEP will be providing this session. Please let Naylene know if you or a staff member will be attending.

CANADIAN POULTRY RESEARCH COUNCIL

Please see the latest attached CPRC articles.

2020 NATIONAL NEW FARMER SURVEY

Please see the attached letter regarding the National New Farmer Survey

CHEP AGRISKILLS

Please see attached document on the new CHEP Agriskills learning platform.

PULLET GROWING SPACE AVAILABLE

Please see the attached notice regarding pullet growing space available

Pricing Orders

Production Cycles

Period	Live Chicken	Hatching Eggs	Saleable Chicks	Day-Old Broiler Chicks
A-156	1.645 \$/kg	551.34 ¢/doz	57.43 ¢/chick	76.37 ¢/chick
A-157	1.647 \$/kg	556.20 ¢/doz	57.94 ¢/chick	76.87 ¢/chick
A-158	1.691 \$/kg	572.19 ¢/doz	59.60 ¢/chick	78.52 ¢/chick
A-159	1.707 \$/kg	574.59 ¢/doz	59.85 ¢/chick	78.77 ¢/chick
A-160	1.697 \$/kg	598.71 ¢/doz	62.32 ¢/chick	81.26 ¢/chick
A-161	1.689 \$/kg	600.92 ¢/doz	62.55 ¢/chick	81.49 ¢/chick

Period	Start Date	End Date
A-156	Apr 14, 2019	Jun 8, 2019
A-157	Jun 9, 2019	Aug 3, 2019
A-158	Aug 4, 2019	Sept 28, 2019
A-159	Sep 29, 2019	Nov 23, 2019
A-160	Nov 24, 2019	Jan 18, 2020
A-161	Jan 19, 2020	Mar 14, 2020

Good afternoon,

In follow-up to the disease notice that was sent out by the Provincial Vet Lab notifying producers that a swan tested positive for a strain of H5 avian influenza (AI) , the BCPA is requesting that the Boards and Commission ask all their producers to move immediately from green biosecurity status to yellow biosecurity status.

The yellow status has heightened biosecurity measures that should be followed in times of high AI disease risk. Under the colour coding biosecurity status protocols developed by the BCPA; finding AI in wild birds in BC is deemed to be a high AI risk situation.

This is especially important given the high density of poultry production in the Laxton Lake area of Abbotsford, the current weather events with extensive water pooling in fields, and the large numbers of wild birds feeding on the ground.

The yellow biosecurity status is attached and copied below.

Thank you for your assistance in this important AI prevention. Please contact me if you have any questions.

Regards,
Christine Koch, Manager
BC Poultry Association
Cell: 604 866-7600
E-mail: koch.c@telus.net

Heightened Biosecurity Yellow

These measures are in addition to your “Green” biosecurity procedures¹ and should be applied when there is a heightened disease risk or other threats in your region within BC.

Controlled Access Zone (CAZ)

- CAZ barrier should be closed at all times
- Restrict CAZ access to all unnecessary vehicles
- Establish a parking area outside of your CAZ
- Implement an “Essential Visitors Only” policy
- Avoid contact with all other avian (bird) and porcine (swine) species
- Avoid contact with all other poultry operations
- No mortalities and cull eggs to leave premise except on recommendation of a governing body (i.e. board/commission, veterinary, CFIA etc.)

Restricted Access Zone (RAZ)

- Keep doors locked at all times when the building is not occupied by personnel
- Closely monitor flock health for decreased feed and water intake, increased mortality, and unusual behaviour. Report any of the above to your Veterinarian and commodity board
- Clean and disinfect traffic area and access points after each egg pick up
- Minimize contact between commercial poultry and wild birds & wild bird droppings

Equipment

- All equipment and materials related to the production of poultry that enter or leave the CAZ, regardless of size or use, must be clean and disinfected

¹ These are not all of the BC Biosecurity Program requirements; please refer to your producer manual for more information. Note if your commodity’s On-Farm Food Safety Program requires more stringent biosecurity measures please follow them instead. The measures above are minimum requirements.



Going for gut health

Potential for yeast-based feed additives continues to grow

Feed ingredients derived from yeast products have been on the market for a number of years, providing a valuable source of protein and benefits to bird intestinal health. For commercial poultry producers, these products offer an effective and inexpensive alternative to antibiotic growth promoters. But there's more work to be done, specifically in researchers' understanding of the components of yeast.



**Bogdan Slominski,
University of Manitoba**

Professor Bogdan Slominski, leader of the novel feed technology research program at the University of Manitoba, has been working with enzyme/yeast-based prebiotic supplements for more than two decades. As part of a four-year project funded in part through the Canadian Poultry Research Council, he prepared products and used them in disease challenge studies with laying hens, broilers and turkeys. This recent work has led to improved technology in Maxi-Nutrio™ a commercially available feed supplement for pigs and poultry from Canadian Bio-Systems Inc., an industry partner and research funder. Maxi-Nutrio is new to the marketplace, and used by a growing number of broiler, layer and turkey operations.

"I've been specifically working on enzyme supplements for fibre components of feed ingredients because the products would contribute to many benefits for gut health effects," Slominski says. "Additionally, we have sets of data that clearly illustrate the benefits of enzyme pre-treated yeast products, and there is more to do."

Slominski says the products he developed aid bird health in two ways. First, they provide nutrients that encourage the growth of beneficial bacteria in the gut. The bacteria functions to lower gut pH and fight pathogens such as *Salmonella*, *E. coli* or *C. perfringens*. Another benefit is that saturating the binding sites in the gut prevents the pathogens from attaching and growing.

"What we are really trying to do is make sure that the animals can perform up to their genetic potential and that their gut health is supporting this," says Slominski.

"With different additives and good diet formulations and the supply of nutrients with these potential additives, we are trying to manipulate the gut a little, and make sure the gut is performing its function of digestion and absorption effectively."

Now, Slominski is continuing his research with partners in Canada and abroad to leverage expertise and partnerships in novel feed technology and create an enhanced understanding of the chemical nature of the active components of yeast. He says despite a large number of studies carried out to determine the prebiotic effects of yeast products for poultry, scientists still lack the proper identification of components involved in protecting the gut from pathogens.

"We are trying to make sure that the animals can perform up to their genetic potential and that their gut health is supporting this."

"In this next step, the focus will be on the release of novel bioactives of yeast using new enzymes along with those used in our earlier research," says Slominski. "We hope to enhance the biological activity of yeast and yeast-derived products, and to determine the effect of enzymatically-released yeast bioactives on gastrointestinal tract development, immune system function, minimizing pathogenic bacteria colonization and improving poultry growth performance."

The plan is to identify the organisms expressing the activities for effective release of yeast bioactives, answering important questions about their mode of action, and leading to enzyme pre-treated yeast products that offer more bioactive properties.

Yeast bioactives technology designed for use as a feed supplement in diets for poultry, swine and ruminants have been available to producers since December 2018.

Slominski's research on the development of yeast products was funded by the Canadian Poultry Research Council as part of the Poultry Science Cluster 2 which was supported by Agriculture and Agri-Food Canada as part of Growing Forward 2, a federal-provincial-territorial initiative. Additional funding was received from industry partner Canadian Bio-Systems.

Getting a handle on the growing presence of IBV variants

Outbreaks of infectious bronchitis (IB) have been steadily increasing in Canada over the last several years, often occurring in broiler and layer breeder flocks, as well as commercial flocks. There's a troubling trend behind the spike in these outbreaks. Based on diagnostic testing done at the University of Guelph's Animal Health Laboratory, there is an emergence of variant strains of the infectious bronchitis virus (IBV) that are posing new control challenges for poultry producers.

Researcher Faizal Careem is on the search for new control strategies for producers as part of a five-year research project he is conducting to evaluate the economic impact of IBV on Canadian layer sector, as well as evaluating vaccine strategies for control of IB caused by the Delmarva (DMV) variant. Careem is head of the Department of Ecosystem & Public Health, and an associate professor of virology at the University of Calgary Faculty of Veterinary Medicine.

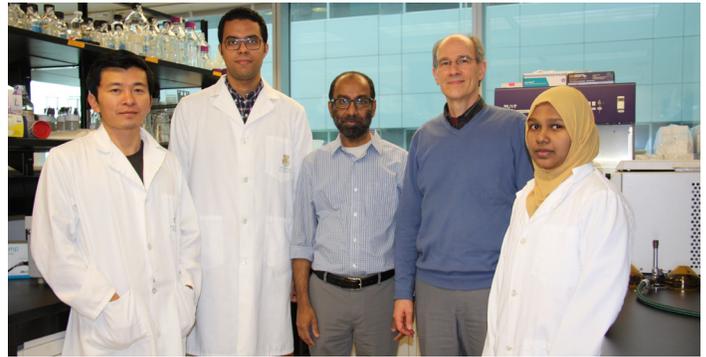
“New IBV variants can decrease egg production by up to 50%.”

Canadian poultry producers depend on vaccines to protect flocks from IBV. “I think producers know that IBV vaccines are short lived, providing immunity for about three to six weeks,” says Careem. The growing presence of new IBV variants signals a need for new strategies to provide effective protection from the virus that, in layers, can decrease egg production by up to 50% compared to unaffected flocks.

“We are evaluating four important IBV variants that are commonly isolated from flocks in Eastern Canada in recent years,” says Careem. There are currently no vaccines in Canada that specifically protect against the DMV variant – one of the four variants that Careem is tracking. But it's something that Careem hopes to shed new light with his research.

“IBV is notorious for mutations and recombination, making control challenging,” says Careem. “But we don't know whether these variant strains of IBV are impacting the reproductive performance of birds. And if these strains do have an economic impact, we need to develop strategies to help producers deal with IBV, which could include optimizing vaccination strategies and developing new, more effective vaccines.”

With the growing presence of IBV variants, producers need to consider potential cross protection in an overall IBV control strategy. Cross protection is a strategy for combining and alternating different types of IBV vaccines to deliver better overall immunity to birds and offer better protection against various IBV strains, including some of the variants like DMV that have no registered vaccines available in Canada to specifically control them.



Careem and his IBV research team (from left to right) MSc student Karma Phuntsho, PhD student Mohamed SH Hussain, Faizal Careem, David Hall and PhD student Shahnas Najimudeen.

Careem is expecting his first set of data by mid 2020, evaluating egg production issues in commercial layer flocks that have the DMV variant of IBV. Part of his five-year project includes evaluating the economic impact of IBV in Canada. “We will also be looking at whether existing vaccines are effective against the DMV variant of IBV, and if not, we'll need to think about developing new vaccines.”

In the meantime, if producers have an IBV outbreak and want to check for the presence of variants, Careem suggests they contact their veterinarian to work together on ways to optimize an IBV vaccination strategy. “Veterinarians can test the flock for the presence of IBV variants and adjust the vaccination protocol to provide alternative control strategies, including making sure there is cross protection,” says Careem. “Tightening biosecurity is another way to reduce the risk of pathogens on the farm.”

Careem'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 funding has been provided by Egg Farmers of Canada, and Alberta Agriculture and Forestry.

Biosecurity at the barn entrance – a critical control point

Biosecurity measures are in place to protect poultry flocks from transmissible infections – but how effective are they really? Researchers in Quebec and Ontario led teams in a two-part research study. Their aim was to evaluate biosecurity measures in lab and field conditions – including the contamination occurring when procedures are not followed properly, and the real impact of a good clean. Now, they're using their data to create training materials to share what they learned about sanitation and the risk of contamination at the entrance of barns.

Having biosecurity protocols may not be enough

Several years ago, Jean-Pierre Vaillancourt, professor, Research Group on the Epidemiology of Zoonoses and Public Health at the University of Montreal, led a research team that filmed nearly 3,000 barn entries and exits at 24 farms in Quebec. The analysis of the collected footage revealed an estimated biosecurity compliance of approximately 35 to 37%.

"In Canada we have only two biosecurity requirements coast-to-coast: We are supposed to change our boots when we enter a poultry barn and sign a logbook," says Vaillancourt. "We discovered half the time people didn't know how to properly change boots to go from one zone to the next, and only a third of barn entries got recorded in a logbook."

"We're trying to get people to wash their hands, change their boots and put on coveralls."

In reviewing footage for boot-changing compliance, the researchers identified three basic types of errors. Some people didn't change boots at all. Others did change their boots but didn't change them as they transitioned from one zone to the next. For example, they would take plastic boots, put them over their shoes, and step where they had

been standing before. And the third error occurred when others managed to move into the zone that is considered clean and then change their boots, which in the process contaminated the "clean" zone with the boots they were wearing when they came from outside.



Jean-Pierre Vaillancourt

What's the impact of contamination?

"I wanted to work with real pathogens to see how they spread, and we were able to modify an *E. coli* so it could produce bioluminescence," says Vaillancourt. "We did a series of experiments and came up with images showing that when a site is contaminated with contaminated boots, a person can contaminate at least 10 metres into the room."

The power of a good clean

For the second part of the project, Ontario researchers set out to investigate how pathogen loads are affected by current barn sanitation procedures recommended by the poultry industry. A research team from the University of Guelph led by Dr. Michele Guerin, associate professor, Department of Population Medicine, tested for the presence or concentration of three pathogens in Ontario broiler chicken barns, before and after a clean-out.

"We were interested in learning how regular sanitation practices on farms impact the presence or absence of *Salmonella* and *Clostridium perfringens*, and the concentration of *E. coli*," says Guerin.

Some producers did a 'dry clean' (cleaning without water). Others did a dry clean followed by a 'wet clean,' which usually includes water and some form of detergent. And others did a full disinfection that includes dry cleaning and wet cleaning followed by application of a disinfecting agent. Guerin notes producers were encouraged to do whatever they normally did, and complete a short questionnaire about their cleaning practices and production schedule.

Her team visited 36 farms three times. The first visit came after the litter had been removed from the barn but before any cleaning had been done (pre-sanitation), serving as the baseline. Her team returned two days and six days after clean-out to test for the presence or concentration of the three pathogens (post-sanitation), swabbing four different areas per floor per visit. They submitted the swabs to the Animal Health Laboratory at the University of Guelph.

“With all three pathogens, we found the presence or concentration was lower in the post-sanitation samples compared to the pre-sanitation, or baseline samples,” says Guerin. “Statistically, there were no differences between the two- and six-day post-sanitation samples.”

Worth noting, Guerin says that the presence of *C. perfringens*, the causative agent of necrotic enteritis, was higher among disinfected barns than dry-cleaned barns. She says it's a good reminder for producers to discuss the disease challenges they have in their flocks with their veterinarian.

For all three pathogens, the presence or concentration was higher on wooden floors than concrete floors. It's a point worth considering when it comes to new builds, says Guerin.

“In Canada our buildings are mainly made of wood, with cement floors. When you do a good washing and cleaning, you will reduce contamination, but wood is not as easy to decontaminate,” Vaillancourt says.

The presence of *C. perfringens* – the causative agent of necrotic enteritis – was higher among disinfected barns than dry-cleaned barns.

Barn entrance design matters

Vaillancourt's team is also developing recommendations for designing barn entrances that allow workers to easily wash and disinfect. That includes having the proper drain – ideally two, if there are two zones. Access to water is important too, and access to warm water is ideal – not just for cleaning purposes, but to eliminate human error as well.

New tech may reinforce good habits

Today, Vaillancourt's work takes him to locations outside of Canada, including France, Italy, Senegal, Côte-d'Ivoire and Ethiopia. He is collaborating and learning about new ways to provide dramatic feedback for people who don't follow procedures.

In one project, he is continuing to work with Dr. Manon Racicot, in the Department of Pathology and Microbiology at the University of Montreal, who he collaborated with on earlier biosecurity research. They are adapting technology used in hospitals in France to alert users when something isn't right. The researchers obtained consent from seven farm workers to put microchips inside their farm boots, and connected the system to hand sanitizer dispensers. If a worker crosses a zone and the sanitizer is not activated, the system signals an alarm. It also detects when the boots are on the wrong side of the line.

Training should review the basics

In Canada, many provinces have biosecurity training programs, but there has been little assessment of how effective they are. For the next phase of research, Vaillancourt's team has reviewed biosecurity training materials available across Canada and internationally, and he has identified some gaps. They are developing training material regarding the risk of contamination at the entrance of barns, but more tests are required – that work will take place in 2020.

“We are trying to get people to wash their hands, change their boots and put on coveralls. If people would actually do that correctly, we would see a dramatic reduction in disease outbreaks of many kinds all over the world,” Vaillancourt says.

Vaillancourt's research on assessment and mitigation of contamination risks was funded by the Canadian Poultry Research Council as part of the Poultry Science Cluster 2 which was supported by Agriculture and Agri-Food Canada as part of Growing Forward 2, a federal-provincial-territorial initiative. Additional funding was received by OMAFRA, Poultry Industry Council and University of Montreal.

Good afternoon,

I hope this email finds you well. I am writing to solicit your help in disseminating a national new farmer survey. The survey will be open until March 31, 2020. It is available at <https://ruminationsongerminations.com/2020/02/19/newfarmersurvey2020/>

An advisory group of young farmers and Julia Laforge, Postdoctoral Fellow at Lakehead University, created this survey to assess the experiences of new farmers in Canada. This survey is a follow-up to our important 2015 survey which was used to advocate for better policies to support new farmers in Canada, including through the national food policy at a Standing Committee on Agriculture and Agri-Food. The results will help understand the unique experiences of new farmers in Canada in 2020. We want to hear from people who are currently farming, want to be a farmer, or have recently exited farming.

Would you please be willing to inform your members about the survey? Your support would help us achieve a good representation of your farming sector in our survey results and data analysis.

You will find below more information on the survey goals and objectives, as well as suggested language for disseminating the survey via Newsletters, Facebook or Twitter.

Please don't hesitate to contact us if you have any questions.

Thank you for your help,

Julia Laforge
Postdoctoral Fellow - Lakehead University
jlaforge@lakeheadu.ca

Pullet Growing Space Available

- 2 custom pullet growing spaces available
 - Week of April 10, 2020
 - Week of November 14, 2020

Some flexibility on dates is possible depending on the age at move

Kevin DeJong
Fraserbridge Farms
604-835-2250