

2020-03-27 COVID-19 Update

Good afternoon,

Please see the attached update from the following...

- Stephanie Nelson, Executive Director
- All Poultry Chairs
- EOC
- AgSafe
- AAAP – University of Georgia

Regards,
Naylene



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March 27, 2020

All Hatching Egg Producers and Stakeholders

RE: COVID-19 Update

Dear Stakeholders,

It is my goal to keep you updates as the situation unfolds with COVID-19 on a weekly basis. Please anticipate reviewing a Friday update via email.

According to CFIA there is currently no evidence to suggest COVID-19 is circulating in animals in Canada. CFIA is conducting research on domestic species (pig, chicken, turkey) to determine their susceptibility to COVID-19 and validate test methods and potential transmission between animals.

This week the BCPA activated a lean EOC and moved into yellow alert; producers should follow the yellow alert Biosecurity protocols. It is important that the communication infrastructure be in place for as minimal interruption to the industry for as long as possible.

Producers should also be aware of the mandatory Public Health Agency of Canada regulations for self-isolating when returning from travel of 2 weeks or if you or a family member are exposed to COVID-19.

There are ongoing concerns regarding the U.S. border but to date there has been no interruption in breeder chick placements or imported product.

Commission staff and the Egg Hatchery Association are consulting weekly on egg flow and the impact to the processing age. Producers should be aware that this situation is ever evolving and highly unpredictable so please be prepared to extend flocks should that be required.

Additionally, processors have flagged some labour risks moving forward and are working with government, supported by industry, to address these concerns.

The office remains closed and staff are working remotely. Expect further updates on this next week. Please email me directly with any questions or concerns on any of these matters.

Regards,

A handwritten signature in black ink, appearing to read "Stephanie Nelson".

Stephanie Nelson, Executive Director
BC Broiler Hatching Egg Commission



March 27, 2020

British Columbia Poultry and Egg Industry Members and Employees,

Re: COVID-19 Pandemic Update

Our province is a different place than it was a few weeks ago. COVID-19 is sweeping across the world in a way we never would have imagined. We know that the amount of information and updates seem endless, but we feel it is important to let you know how much your work is appreciated and that we are here to support you during these uncertain times.

We cannot express enough our thanks to all of you for your dedication and commitment to providing fresh poultry and egg products on a daily basis. Knowing that you continue to work every day is bringing comfort to all British Columbians. Agriculture and food production are not only life sustaining practices, they are also considered essential services under a state of provincial emergency.

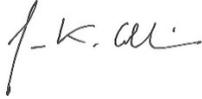
We appreciate the concerns you must have about your own personal health and the safety of your families as you continue with your daily lives. We trust that the measures being taken industry-wide are providing comfort that your safety and well-being is and will remain at the top of the priority list. The entire industry from the producer through to the retail markets are committed to the prevention measures and guidelines issued by our federal and provincial health experts. Adjustments have been made and we appreciate your cooperation and support for measures such as voluntary temperature readings prior to entering the workplace.

Thank you for your continued dedication and commitment. We stand with you and are here to support you. If you have any questions or concerns about COVID-19 in our industry, please do not hesitate to reach out to us through the appropriate board office. Without the full support of all participants in the poultry and egg industry supply chain, we would not be able to supply our BC neighbours with the food they need. All of us are important links in that chain.

Sincerely,



Harvey Sasaki
Chair
BC Chicken Marketing Board



Jim Collins
Chair
BC Hatching Eggs



Gunta Vitins
Chair
BC Egg Marketing Board



Kevin Klippenstein
Chair
BC Turkey Marketing Board

c.c. Lana Popham, Minister
Wes Shoemaker, Deputy Minister
Peter Donkers, BC Farm Industry Review Board
Blair Shier, Primary Poultry Processors Association of BC
Bryan Brandsma, BC Broiler Hatching Egg Producers Association
Dale Krahn, BC Chicken Growers Association
Mark Siemens, BC Egg Producers Association
Steve Heppell, BC Turkey Association
Poultry Catching Crews
Kim Novak, UFCW 1518

**EOC Weekly COVID-19 Update
For Friday, March 27, 2020**

This will be a weekly update if the Covid-19 situation continues to rapidly change or as needed if issues trail off. The update format will be an update from the emergency operations centre (EOC), key industry news items, and useful links.

AgSafe's hot tip of the week:

We recommend that Farmer's have a plan in place in case of illness of farmer or key workers to allow for a smooth and safe transition on the farm.

- Identify who you can ask to help?
- Does this person know the skills and knowledge for your farm?
- Write down a daily work plan detailing, stock location, feeding requirements and animal health plans.
- Provide operating instructions for all machinery. Including milking barn, automatic poultry systems and provide information of farms daily checks. "e.g. Check that feed isn't bridged in feed bin" etc.
- Provide a list of emergency contacts for farm including Veterinarian, technical advisers and relevant equipment dealership.
- Try to ensure workers are multi-skilled where possible. Can everyone operate feeding systems safely.
- Plan ahead and educate for safe operation in the event of your absence form farm

See AgSafe's Agricultural Site for COVID-19 Prevention Procedures and worker safety for more information.

<https://agsafebc.ca/tools/emergency-planning-resources/>

UPDATE FROM THE POULTRY EMERGENCY OPERATIONS CENTRE (EOC)

On Monday, March 23 the BCPA decided to activate the poultry emergency operations centre in response to the on-going Covid-19 situation. The first conference call was held on March 23 for section chiefs.

Activating the EOC was in response to a human health issue rather than a bird health issue. At this point the only part of the EOC that has been activated is the EOC director Dan Kampen (incident commander) and Christine Koch the liaison officer. We will mainly be working in a communications role. Christine will be preparing weekly summaries that will be sent to the boards and commission to be forwarded to their members. Dan and Christine will be participating in weekly poultry supply chain conference calls from now on rather than holding separate EOC conference calls.

Sawdust supply was identified as an issue and a request was made to the boards to look into alternatives and reusing broiler litter. The CFC Executive Committee and Steve Leech, CFC National Program Manager have been contacted and they will look into the re-use of litter and if this step can be taken; and to advise of standard operating procedures for treating litter prior to placement of the next flock.

The scheduled section chief meeting will be held on April 6, but as a conference call.

Poultry supply chain conference calls

The BCPA and the EOC is participating in weekly poultry supply chain conference calls with BC Ministry of Agriculture, processors, hatcheries and the four boards. Some of the key points:

- The issue of shaving supply has been flagged and made a priority with AGRI Executive.
- The whole poultry supply chain has been flagged by AGRI executive
- Processors are working with CFIA and submitting staffing requirements in advance. There are some issues with employee absenteeism and union demands. There is also a growing shortage of sanitizers and personal protective equipment for processing staff.

INDUSTRY UPDATES

Essential services

Please see the following link for a list developed by the Province in consultation with the Provincial Health Officer, that defines essential services British Columbians rely on in their daily lives in the context of COVID-19 response and recovery:

<https://news.gov.bc.ca/releases/2020PSSG0020-000568>

Food and agriculture service providers

- food cultivation, including farming, livestock, aquaculture and fishing, and businesses that support the food supply chain, as well as community gardens and subsistence agriculture;
- food processing, manufacturing, storage and distribution of foods, feed products and beverages;
- workers essential to maintaining or repairing equipment in food processing and distribution centres;
- workers, including temporary foreign workers, to support agricultural operations to enhance food security;
- retail: grocery stores, convenience stores, farmers markets and other establishments engaged in the retail sale or provision of food, pet or livestock supply, liquor, cannabis (including producers), and any other household consumer products, such as cleaning and personal care products.
- includes stores that sell groceries and also sell other non-grocery products, and products necessary to maintaining the safety, sanitation and essential daily operation of

residences. such as home supply, hardware, building material stores, pawn brokers, and garden centres and nurseries;

- farming supply, including seed, fertilizer, pesticides, farm-machinery sales and maintenance;
- inspection services and associated regulatory and government workforce and supporting businesses required for slaughter of animals, dairy production and food safety; and
- businesses that provide for the health and welfare of animals, including veterinarians, farms, boarding kennels, stables, animal shelters, zoos, aquariums, research facilities and other service providers.
- feed, water, bedding, veterinary care, veterinary supply, transport and processing services for livestock, animal shelters and pets;

Temporary payroll subsidy

The temporary payroll subsidy has just passed parliament and we must wait regulations to come out to take advantage of the subsidy.

“As part of the COVID-19 Economic Response Plan, the Government of Canada will provide eligible small business employers with a temporary wage subsidy for a three-month period. The subsidy will be equal to 10% of remuneration paid during that period, up to a maximum subsidy of \$1,375 per employee and \$25,000 per employer.”

We are now awaiting federal regulations on the process, basically it will be done by an equivalent reduction in deduction at source remittance.

CFIA inspectors at processing plants

The Canadian Food Inspection Agency (CFIA) is making every effort to maintain critical services. This includes activities related to food safety, and animal and plant health. They remain committed to supporting exports.

While CFIA remains committed to continuing inspection services during regular hours, staff are unable to provide any assurances related to overtime operation.

CFIA is focussed on three measures that will hopefully ensure the availability of staff:

- recalling retired inspectors.
- discussing with provinces the option of utilizing provincial inspectors in federal plants; and
- discontinuing all non-critical tasks (e.g. product quality related work) and reprofiling these inspectors to other tasks. An announcement is expected shortly as to what is considered non-critical.

CFIA have indicated that they understand the need for overtime hours and will try to accommodate extra shifts if possible. These will be decided on a week to week basis.

Industry is being encouraged to develop contingency plans to manage delays in processing. The President of CFIA remains directly engaged on this.

Financial programs

1. ACC and the APP Stay of Default:

- For now it applies to Potted/Greenhouse program payments on or before April 30, 2020. Get on it right away if you have a March 30th payment before that comes out of your account.
- AAFC will deal with the Trees & Shrubs payments due on or before Sept 30, 2020 as we get closer to those dates.
- Unlike previous years and other sectors, the \$1 million cap is still in effect for total borrowing.

Please contact advance@agcreditcorp.ca or 1-888-278-8807.

2. FCC Deferral of Principal and Interest:

- Get your request in ASAP as FCC then has to send you some paperwork.
- This is a quick way to conserve cash and the deferral is added to your amortization schedule, so no immediate repayment requirements.

Contact FCC at 1-888-332-3301, csc@fcc-fac.c or at the Abbotsford office 604-870-2417

3. FCC Working Capital Loan up to \$500k:

- The loan is based on a working capital analysis.
- Amount of loan approved is based on "working capital needs".
- 24 month old financials will be accepted.
- Term is 2 years and separate from any other loans.
- Secured by General Security Agreements (GSA).
- No details yet on re-payment schedules.
- FCC will allow ACC loans to take 1st position on APP loans.
- There are no fees on this product.

It is likely that these programs may be fine-tuned as the days and weeks proceed.

<https://www.fcc-fac.ca/en/covid-19/program-details.html>

Ask the Vet COVID 19 and poultry, by: Brett Ruffell

Understanding the wide array of information about coronavirus to make sense of the risks. There is a great deal of information about coronavirus in the news and on social media. It can be hard to know what is factual and what you need to understand to make sense of the risks. The vets at Poultry Health Services have kindly shared some key concepts and definitions to help you navigate the information already circulating.

Are avian coronaviruses infecting humans?

No, avian coronaviruses are not infecting humans as they are a different class of coronavirus (gammacoronavirus).

Can humans be infected with the coronaviruses commonly found in birds (like infectious bronchitis virus – [IBV])?

There is no evidence of humans becoming infected with coronaviruses commonly found in birds and we have been studying avian coronaviruses since 1930! We think this is because of major differences between the viruses and the avian receptor proteins.

Can humans give COVID-19 to chickens and turkeys?

This is highly unlikely, as COVID-19 is a betacoronavirus which usually only affect mammals. Even if a flock of chickens or turkeys were exposed to humans infected with COVID-19, they wouldn't become infected.

Are poultry products safe to eat?

Yes, poultry products are safe to eat.

Still have more questions?

If you want to learn more, read the attached factsheet "*Ask the Vet*". While you may not have heard of coronavirus until lately, these are very common viruses – in fact, so common that coronavirus infections are usually called "the common cold".

Numbers on Covid-19

Dr. Zhang Wenhong, a leading doctor in COVID-19 disease control in Shanghai shared his point of view that COVID-19 may last till this winter and next spring may see another surge of the disease but will eventually come down again. He estimates that in the Northern Hemisphere the situation may get a lot better in the summertime, however, the Southern Hemisphere may see an increase during the same period.

World Health Organization announced that on March 24, the total confirmed cases of COVID-19 in the world is 372,757, of which West Pacific Region has 96,589 (91,845 a week before) cases, Europe has 195,511 (74,760 a week before), East Mediterranean Region has 27,215 (18,060 a week before), America Region has 49,444 (4,979 a week before), South East Asia has 1,990 (538 a week before), Africa has 1,305 (233 a week before).

John Hopkins latest data shows that the total confirmed cases around the world reached 407,485.

It took 67 days to have the first 100,000 COVID-19 cases in the world, and 11 days to have another 100,000 cases. It only took 4 days to have the third 100,000 cases and 3 days to have the fourth 100,000 cases.

Representative from Royal Canada Bank shared during a webinar that the market is swinging widely during the pandemic. 25 percent of consumer spending, such as travel, catering and entertainment are lost and will not be compensated in the future. Another 25 percent of consumer discretionary spending are on the risk. With the uncertainty of the economy, consumer become more cautious about the spending. Government and enterprises sacrifices GDP to control the COVID-19 outbreak, which is the first hit to the economy. The second hit may come from the loss of jobs in the market if occurs. This will be a bigger pain and last

longer. However, there are measures that the government can take to scale down the increase of the unemployment rate. For countries that have 1-month lock-down, economic recovery may come in the third quarter and for countries that have 2-month lock down, economic recovery may come in the fourth quarter in 2020.

COVID-19 RESOURCES - USEFUL LINKS:

Several organizations have compiled a list of COVID-19 resources helpful to producers.

Key BC provincial Links

Non-medical information about COVID-19 is available 7:30am-8pm, 7 days a week at 1-888-COVID19 - (1-888-268-4319).

Download a Covid=19 self-assessment tool:

<https://bc.thrive.health/?fbclid=IwAR3wzChMn8L1Qn6AdCCdfb4xxzSi5dzG2FLLdYHPi0sXrrG4lCf7AutSh14>

AgSafe's Agricultural Site for COVID-19 Prevention Procedures and worker safety

<https://agsafebc.ca/tools/emergency-planning-resources/>

BC Centre for Disease Control

www.bccdc.ca

COVID-19 Provincial Support and Information

gov.bc.ca/covid19

National sources:

Agriculture and Agri-Food Canada COVID-19 Information Page

<http://www.agr.gc.ca/eng/coronavirus-disease-covid-19-information-for-industry/?id=1584732749543>

Canadian Agricultural Human Resources Council

<https://cahrc-ccrha.ca/programs/emerging-agriworkforce-issues/information-and-updates-coronavirus-covid-19>

Canadian Federation of Agriculture

<https://www.cfa-fca.ca/resources/resources-on-covid-19/>

Canadian Food Inspection Agency COVID-19 Page

<https://www.inspection.gc.ca/covid-19/eng/1584729805758/1584729899016>.

CRA - Frequently Asked Questions – Temporary Wage Subsidy for Employers

<https://www.canada.ca/en/revenue-agency/campaigns/covid-19-update/frequently-asked-questions-wage-subsidy-small-businesses.html#h2>

Immigration, Refugees, and Citizen Canada - travel ban exemption for Temporary Foreign Workers

<https://www.canada.ca/en/immigration-refugees-citizenship/services/coronavirus-special-measures.html>

Service Canada COVID-19 – Benefits and services

<https://www.canada.ca/en/employment-social-development/corporate/notices/coronavirus.html>

Federal programming for producers:

<https://pm.gc.ca/en/news/news-releases/2020/03/23/prime-minister-announces-support-farmers-and-agri-food-businesses>

World Health Organization (WHO) Getting your workplace ready for COVID-19

https://www.who.int/docs/default-source/coronaviruse/getting-workplace-ready-for-covid-19.pdf?sfvrsn=359a81e7_6

Good afternoon All,

I hope that you and your families are all well at this time. As I mentioned earlier this week AgSafe would endeavour to assist employers with their respective COVID-19 actions.

I would be grateful if you could share our most current guide with your members. Please advise that AgSafe is willing to answer any questions or provide online /or phone support to employers implementing this.

<https://agsafebc.ca/wp-content/uploads/2020/03/2020-03-27-COVID-19-Best-Practice-Advice-AgSafeBC.pdf>

Feel free to get in touch if you have any further questions.

Kind regards,
Tadhg

Tadhg O'Leary MVB Safety Adviser
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March 23, 2020

What we know about avian coronavirus infectious bronchitis virus (IBV) in poultry — and how that knowledge relates to the virus causing COVID-19 in humans

Mark W. Jackwood, MS, Ph.D.

Department of Population Health, Poultry Diagnostic and Research Center, College of Veterinary Medicine,
953 College Station Road, University of Georgia, Athens, GA 30602, USA

To better understand the challenges associated with the COVID-19 disease in humans, poultry health professionals can draw on their many years of experience attempting to control avian coronavirus infectious bronchitis (IBV) in poultry.

It's important to emphasize that the COVID-19 virus (SARS-CoV-2) is *not* associated with poultry or poultry products. Coronaviruses are divided into Alpha-, Beta-, Gamma- and Delta- coronavirus groups. Coronaviruses are responsible for a wide variety of existing and emerging diseases in humans and other mammals (including food animals) as well as in birds (including poultry). Diseases associated with coronavirus infections cover a wide range including respiratory, enteric, neurological, renal and hepatic.

The coronavirus that affects poultry (IBV) and causes respiratory disease in chickens is in the avian **Gammacoronavirus group**. Avian viruses in the Gammacoronavirus group do *not* infect or cause disease in humans.

The COVID-19 virus is in the **Betacoronavirus group** along with SARS-CoV and MERS-CoV. It was previously shown that SARS-CoV does not infect or cause disease in poultry (Swayne et al. Emerging Infectious Diseases Vol. 10, No 5, May 2004). Because the COVID-19 virus belongs to the same group as SARS-CoV and uses the same ACE-2 host cell receptor, it is highly unlikely that the COVID-19 virus will infect or cause disease in poultry, but it remains to be scientifically proven.

Based on the knowledge at hand, and the current lack of any evidence of bird infections with the COVID-19 virus, poultry and poultry products are not considered to be a source of COVID-19 infection for humans. The COVID-19 virus is primarily spread among people via respiratory droplets that contain the virus, with infections occurring via the nose, eyes and mouth. Although highly infectious, it is an enveloped virus — one that is easily killed by soap and common disinfectants. Below are some frequently asked questions regarding coronaviruses.

Where do coronaviruses come from?

Bats are widely accepted as the reservoir for mammalian (Alpha- and Beta-) coronaviruses. There are about 1,240 different bat species harboring as many or more different coronavirus types. SARS-CoV and MERS-CoV came from a bat reservoir, infected an intermediate host then jumped to humans. It is likely

that the COVID-19 virus originated from bats, Furthermore, preliminary data show some viruses isolated from bats to be close relatives. An intermediate host for the COVID-19 virus has not been identified yet.

The reservoir for avian coronaviruses, including IBV, is not clear. There are some closely related viruses in wild and domestic birds — pheasants, ducks, geese and pigeons, to name a few — but unequivocal evidence of a true reservoir is lacking.

Why is it difficult to produce a vaccine against coronaviruses?

Protective immunity against a respiratory disease like infectious bronchitis (IB) in poultry or COVID-19 in humans requires a strong local immune response.

In poultry, we achieve this by using live attenuated vaccines, but live coronavirus vaccines are difficult to produce because attenuation often renders them unable to produce a strong local immune response. Attenuation is accomplished by passage of the virus in a laboratory host system (embryonating chicken eggs or cell culture), but there is a fine line between attenuation and maintaining the viruses ability to infect and induce an immune response. Over attenuation renders the vaccine safe but not immunogenic, whereas under attenuation will create a vaccine capable of inducing a strong immune response but may cause a severe vaccine reaction. Then there is the problem of back passage of the vaccine in the host leading to a pathogenic virus.

Based on our knowledge of producing vaccines against IBV, production of a live attenuated vaccine against COVID-19 with acceptable safety and efficacy may prove to be very difficult.

What about using killed vaccines against coronaviruses?

There are killed (inactivated) vaccines against IBV for poultry, however they are also difficult to develop. Chemicals such as formalin or beta-Propiolactone used to kill the virus also can destroy the integrity of the spikes, thus yielding a vaccine that does not induce a protective immune response. In addition, for killed vaccines to be effective, they must be given after a live attenuated “priming” vaccine, which, as discussed above, has significant safety issues.

In humans, killed vaccines against respiratory viruses are used, for example against influenza virus, but this requires growing the virus to high titers, inactivating it and using safe adjuvants. This has proved difficult to achieve for human coronaviruses.

Why don't we have recombinant vaccines against IBV in poultry? And could a recombinant vaccine be developed for the COVID-19 virus?

The coronavirus surface-spike glycoproteins are embedded in a lipid envelope and have conformationally dependent epitopes that induce neutralizing antibodies in the host. When the spike protein is removed from the virus envelope or when it is expressed in a laboratory system, those conformationally dependent

epitopes are not faithfully reproduced. Thus, vectors such as fowl pox and herpesvirus of turkeys have not been suitable vaccine platforms for expressing coronavirus spikes.

Spike protein production by the virus in a natural infection is very specific and difficult to mimic, thus other recombinant vaccines, such as DNA vaccines, RNA vaccines and subunit vaccines, do not accurately reproduce spike. Additionally, these vaccines usually do not stimulate adequate local immunity and have to be given many times to provide any protection.

Then there are genetically altered coronavirus vaccines derived from infectious clones. Making changes to the genome of the pathogenic virus to create a safe, attenuated live coronavirus vaccine that is still capable of inducing an effective immune response is complex and often results in non-viable viruses or insufficient protection. It can be a fast track to finding a vaccine candidate, but the safety of these live vaccines must be rigorously tested.

Fortunately, it is not all bad news. The immune system of a bird is very different from that of a human. What doesn't work in poultry may actually work well in humans. In addition, financially we can do a lot more in development and delivery of vaccines in humans than in poultry, where tight margins make it necessary for vaccines to improve the welfare of the flock while still yielding a satisfactory return on investment. The goals and performance parameters for human vaccines are obviously much different than production agriculture. Currently, there are many different coronavirus vaccines and platforms being developed or optimized for human use.

How do different serotypes/genetic types of coronavirus complicate vaccine development?

In poultry, there are many types (serotypes/genetic types) of IBV that do not cross protect. Consequently, recovery from one type does not immunize the bird against another type. For this reason, we have had to develop a number of different IBV vaccines (Ark, Mass, Conn, DE, etc.) to control the disease.

Fortunately, there appears to be only one type of COVID-19 virus circulating in humans. However, full genome sequencing has shown that the virus is changing. A number of mutations have been observed, but none appear to be maintained at this time, which suggests they are not important for transmission or virulence. From a vaccine standpoint, only one type of COVID-19 virus circulating in humans means that only one vaccine type should be needed to protect against this disease.

Are there treatments for coronaviruses?

For humans, we have antiviral drugs like oseltamivir (Tamiflu) for Influenza, but there have not been any successful drugs developed specifically for coronaviruses. Drugs against the viral-encoded proteases have been tried, as well as drugs that interfere with entry and egress of the virus from the host cell. These and many other potential antivirals are presently being tested by several companies.

Two drugs currently in the news, chloroquine and hydroxychloroquine are being examined for their ability to ameliorate COVID-19 infections. These drugs have been used against malaria, lupus and

rheumatoid arthritis for many years. Preliminary data out of China indicate that the drugs stop the spread of the COVID-19 virus in cell culture and are somewhat effective in treating humans. But, until controlled clinical trials are conducted, their effectiveness against COVID-19 remains a question.

It is likely that this pandemic will not be over anytime soon. In the meantime, follow the Centers for Disease Control and World Health Organization recommendations to protect yourself and your family. Poultry flocks do not appear to be at risk.

Web sites for additional information on COVID-19:

<https://www.cdc.gov/coronavirus/2019-ncov/index.html>

<https://www.who.int/emergencies/diseases/novel-coronavirus-2019>

Note: This statement was developed on behalf of the American Association of Avian Pathologists, an international association whose mission is to promote scientific knowledge to enhance the health, well-being, and productivity of poultry to provide safe and abundant food for the world. For more information, visit aaap.info.