

The information was obtained from a survey of the clinical impressions of practicing veterinarians between May 1<sup>st</sup> to July 31<sup>th</sup>, 2018, and laboratory data from the Animal Health Laboratory, with input from poultry specialists. It is the intent of this program to advance and protect the health of poultry in Ontario



## Ontario Animal Health Network (OAHN) Poultry Expert Network Quarterly Producer Report

Quarter 3, 2018 (May 1<sup>st</sup> - July 31<sup>th</sup>, 2018)

### Avian Influenza Reminder for Poultry Farmers

Avian influenza (AI) can infect both domesticated and wild birds, including chickens, turkeys, pheasants, quail, ducks, geese, and guinea fowl. Birds become infected when they have direct contact with the ocular or nasal discharge or feces from infected birds or from contact with contaminated surfaces, food or water supply.

**There is an increased risk of AI infection to poultry flocks during fall wild bird migrations.**

Avian influenza can be brought into a barn by breaches in biosecurity, and it is most often transmitted from one infected commercial flock to another by movement of infected birds or contaminated equipment or people.

All poultry farmers should monitor for mortalities and track flock feed and water consumption. Watch for any clinical signs of disease, such as depression, decreased feed consumption, egg production drop, swollen wattles, sneezing, gasping, ocular or nasal discharge, diarrhea or sudden death.

**If you have any concerns regarding the health status of your flock, contact your veterinarian immediately.**

**Key steps** to reduce the risk of infection in your flock include:

- Ensure adequate training of farm and company personnel in biosecurity and disease prevention.
- All people entering poultry barns, including farmers, employees and service providers, must put on clean footwear, protective clothing, and follow all biosecurity protocols each time a barn is entered.
- Minimize visits to other poultry production sites and avoid any co-mingling of birds or contact with outside/wild birds.
- Avoid exchanging and sharing equipment with other poultry production sites or farms.
- Ensure all vehicles and farm equipment that access the barn vicinity are properly washed, disinfected and thoroughly dried before use.
- Ensure that laneways are restricted and secured.
- Prevent wild bird and rodent entry to poultry barns and related facilities.
- Ensure that bedding is free of contaminants (feces from wild animals, etc.)
- If possible, “heat treat” the barn/litter ahead of chick or poult placement (to 30°C for at least 3 days).

Additional information is available at:

[http://www.omafra.gov.on.ca/english/livestock/vet/facts/avian\\_influenza.htm](http://www.omafra.gov.on.ca/english/livestock/vet/facts/avian_influenza.htm)

<http://www.omafra.gov.on.ca/english/livestock/poultry/smallflock.html>

<http://www.inspection.gc.ca/animals/terrestrial-animals/biosecurity/standards-and-principles/avian-biosecurity/eng/1344748344710/1344748451521>

<http://www.omafra.gov.on.ca/english/crops/organic/news/2015/2015-02a2.htm>

# Poultry Veterinarian Survey Highlights

## Broilers

- **Inclusion body hepatitis (IBH).** The increase in the number of IBH cases that was reported by poultry veterinarians in Q1 and Q2 2018 continued this quarter (Q3 2018), and based on the lab data, many of the affected flocks are between 9 and 31 days of age. Serotypes FAdVD 8 and 11 have both been detected in some of the submissions and these are the most common serotypes identified in Ontario and have always been included in the broiler breeder IBH autogenous vaccine. Feedback from the OAHN Poultry Expert network is that the impact of IBH on Ontario broiler flocks is very variable, with only one practitioner reporting in the clinical impressions survey of a flock with an IBH infection with 2% loss, which was not repeated in subsequent flocks.
- **Lameness of viral origin** caused by reovirus has slightly increased this quarter (Q3 2018) compared to the previous 2 quarters (Q1 2017, Q2 2018). Reovirus, associated with a domestic group of flocks shedding variant D reovirus was reported, and 2 broiler flocks were euthanized. At the hatchery level to reduce the risk of transmission, 3 weeks of hatch and 2 weeks of eggs from the associated breeder flocks were destroyed. Autogenous reovirus variant D strain vaccination of the Ontario broiler breeder flocks has been started this summer, and the placement of the first broiler chicks from these flocks on Ontario farms will be in early 2019.
- The number of **IBV infections** remained stable for this quarter. DMV strain continues to be the most common variant detected in affected flocks. Typically, the most common presentation is elevated IBV titers at processing with minimal clinical signs. However, one practitioner reported respiratory signs and pericarditis in an older flock.
- **Late systemic bacterial infections** (>14 d old) and **early systemic bacterial infections** (<14 d old) with *E. coli*, and occasionally *Pseudomonas aeruginosa* or *Enterococcus cecorum* involvement remained stable. There was a single report of *Salmonella* Group B mixed with *E. coli* infection in a flock < 14 days of age and 2 reports of *Salmonella* Enteritidis mixed with *E. coli* infection in a flock < 14 days of age and in a flock > 14 days of age.
- Some practitioners reported an increase in **lameness of bacterial origin** cases in this quarter. The majority had *E. coli* and *Enterococcus cecorum* involvement with fewer mixed infections with *E. cecorum*, *Staphylococcus aureus*, and *E. coli*. *E. coli* & *E. cecorum* and *E. cecorum* alone were isolated from vertebral abscesses, and *E. coli* and *E. cecorum* were also associated with osteomyelitis and arthritis.
- Intestinal conditions including **coccidiosis** and **necrotic enteritis** were reported primarily in RWA flocks.
- Occasional high titers to **infectious bursal disease virus (IBDV)** at shipping has been reported. These birds are not making production targets, however, they do not show clinical signs. Disinfection and vaccination are useful strategies.
- **Condemnation** issues remained stable. Cellulitis was reported as the main reason for condemnation.
- 50% of reporting practitioners indicated that **≥25 % of the *E. coli* isolates** were resistant to trimethoprim sulfa (TMS).

## Broiler-Breeders

- The number of **early bacterial infection (<14 d old)** cases primarily in males increased in this quarter. Mildly increased mortalities have also been observed in females with mortality stabilizing to a new normal that is slightly higher than previously reported. Most commonly, *E. coli* was isolated. A few cases of early mortality due to dehydration/starve out were noted by practitioners.

- **Bacterial lameness** cases increased this quarter. In young flocks, a slight increase of lameness with *E. coli* and *Staphylococcus aureus* involvement was noted. In older flocks, bumblefoot with *E. coli* and *Enterococcus cecorum* was reported. One case of *Staphylococcus aureus* infection in males at 22 weeks was noted.
- Reovirus was detected in one flock of pullets with lameness.
- **Developmental lameness** cases somewhat increased. More osteomyelitis cases, assumed to be related to cartilage development as predisposing cause has been described.
- Increase in **IBV infections** causing **decreased production** and reduced peaks was reported this quarter by practitioners. The DMV strain was isolated from the affected flocks. Seeing an increase this summer in IBV-DMV isolations, and continuing to find more positives is interesting given that some of these were found during periods of very hot and dry weather which is not considered to be the norm for IBV. Affected flocks were distributed randomly and no temporal patterns were observed suggesting the DMV strain is highly prevalent in the province and so speculation is that these only develop in certain immunosuppressive/stress conditions.
- **IBV-DMV** also associated with **increased mortality**. Increased feed clean up time was reported both in cases of production drops and increased mortality.
- Cases of **in-lay bacterial septicemia** were stable this quarter. Mostly *E. coli* with occasional mixed infections including *Enterococcus cecorum*, *Staphylococcus aureus*, and *Gallibacterium anatis* were reported.
- *Mycoplasma synoviae* infection was detected on a single farm.
- **Disease related hatchability issues** remained stable. Low numbers of white chick syndrome cases continue to be seen and interestingly with milder hatch drops. Two cases with elevated mid-stage embryo mortality associated with *E. coli* infection has been also reported.
- Breeder flocks had low percentage of **Salmonella isolations** on routine environmental monitoring. *S. Kentucky*, *S. Heidelberg*, *S. Agona*, *S. Livingstone*, and *S. Mbandaka* were the most commonly reported serovars.
- **Male aggression** was stable this quarter. Males in early lay barns were mostly affected, and were managed with proper male to female ratio.
- Around 40 % of *E. coli* isolates were **multi-drug resistant** (resistant to >3 drugs).

## Layers

- Cases of **IBV infections** in laying flocks were stable in this quarter. Currently an IBV monitoring program, sponsored by the Egg Farmers of Ontario is underway in Ontario. The obtained information will be used to further understand false layer syndrome, and to gain more insight into the extent of bronchitis infections across Ontario including risk factors.
- One practitioner reported increased **early systemic bacterial infections**.
- **Bacterial peritonitis / salpingitis** due to *E. coli* remained stable.
- **Coccidiosis and necrotic enteritis** have been reported in 21-25 week old flocks. Day-old coccidial vaccination is more commonly performed and increased lighting immediately following the procedure improves vaccine uptake.
- Occasionally, *Mycoplasma synoviae* infections were detected on multi-age farms.

## Turkeys

- **Early (<14 d old) and late systemic bacterial infections (>14 d old)** remained stable. Mainly *E. coli* and in some case *E. coli* mixed with *Salmonella Heidelberg* or *S. Typhimurium* were the predominant bacteria.
- **Necrotic enteritis and coccidiosis** were stable.

- **Salmonella isolations** on routine environmental monitoring **slightly increased**. The most common serovars isolated were: *S. Senftenberg*, *S. Schwarzengrund*, *S. Uganda*, *S. Heidelberg*, *S. Albany* and *S. Typhimurium*.
- Starveouts and dehydration were reported by practitioners as the main cause for early mortality (<14 d old).
- One suspected case of **Reovirus tenosynovitis** and one case of roundheart were reported by single practitioners.
- **ORT** cases became stable in this quarter. This condition in turkeys is not as uncommon as erysipelas.
- **Gangrenous dermatitis** caused by *Clostridium septicum* continues to be occasionally reported. The bacterium exists in the environment as a spore, and effective disinfection between winter flocks is difficult as moisture and heat are both required.
- **We thank the following poultry veterinarians who completed the veterinary survey:** Dr. Elizabeth Black, Dr. Peter Gazdzinski, Dr. Shahbaz Ul Haq, Dr. Genevieve Huard, Dr. Mike Joyce, Dr. Kathleen Long, Dr. Rachel Ouckama, Dr. Mike Petrik, Dr. Joanne Rafuse, Dr. Fernando Salgado-Bierman, Dr. Kathleen Sary, Dr. Ben Schlegel, Dr. Lloyd Weber, and Dr. Alex Weisz.

## Updates

- The federal government made regulatory changes to address antimicrobial resistance. After November 13, 2017, no medically important antimicrobials are authorized for importation for own use. Ionophore products and coccidiostats will NOT be affected by this change. OMAFRA is proposing to make changes to Regulation 730 under the Livestock Medicines Act (LMA), including removal of medically-important antimicrobials from the list of drugs available for sale from provincially licensed Livestock Medicines Outlets.
- As of December 1, 2018, antimicrobials will no longer be sold at livestock medicine outlets in Canada. This means that all poultry farmers, including small flock owners, will need to have a veterinarian-client-patient relationship (VCPR) as a prescription will be required to obtain antimicrobials. The Canadian Animal Health Institute developed a poster that lists all medically important antimicrobials requiring a veterinary prescription as of December 1, 2018. You can access it at: [https://www.cahi-icsa.ca/uploads/userfiles/files/CAHI\\_MIA\\_Poster\\_Feb27\\_2018\\_website%20ENG\(2\).pdf](https://www.cahi-icsa.ca/uploads/userfiles/files/CAHI_MIA_Poster_Feb27_2018_website%20ENG(2).pdf)
- Upcoming **Poultry Industry Council** events: **Eastern Poultry Conference**, St. Isidore, Nov 21, 2018. **Producer Updates**: Belleville, Dec 5, 2018; Brodhagen, Dec 12, 2018.
- **Poultry Health Research Network** lectures can be accessed on the PHRN website or on the PHRN YouTube channel: <https://www.youtube.com/user/PoultryHRN>



## Your OAHN Poultry Network Team:

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