The information was obtained from a survey of the clinical impressions of practicing veterinarians between November 1st, 2016 and January 31th, 2017 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 1, 2017 (November 1st 2016-January 31st 2017)

Avian Influenza Update

Multiple strains of low and high pathogenic influenza virus outbreaks have been identified in commercial and backyard poultry flocks in the southeastern and southern US, and this region is located within the Mississippi flyway – the same flyway that extends into northwestern and southwestern Ontario. Considering the presence of current avian influenza cases in the US, there is a high risk of re-emergence of avian influenza in Ontario. Poultry stakeholders can help to prevent the introduction of the influenza viruses into their flocks and also avoid spreading the virus within and among farms by following strict biosecurity practices and through early detection of infection.

Flocks experiencing excessive spikes in mortality or mortality that continues to rise should be tested for avian influenza. If you are a poultry sales specialist please consult the SALES SPECIALISTS POULTRY FARM VISIT BIOSECURITY GUIDE & CHECKLIST.

Wild bird migration plays a role in disseminating avian influenza viruses. If you find dead wild birds (cluster of 3 small birds or one large wild bird) on a poultry farm, contact the Canadian Wildlife Health Cooperative (phone #: 1-866-673-4781) to organize the testing of these birds.

Two **podcasts** on **Avian Influenza** have been produced by OAHN Poultry. Please share with your contacts.

COMMERCIAL: https://oahn.podbean.com/e/avian-influenza-information-for-commercial-producers-with-dr-tom-baker/

SMALL FLOCK: https://oahn.podbean.com/e/avian-influenza-information-for-small-flock-owners-with-dr-tom-baker/

Additional resources on poultry health and biosecurity can be found at:

http://oahn.ca/resources/networks/poultry/

Infectious Bronchitis Virus Update

The number of IBV cases continued to increase in this quarter in broiler, broiler breeder and layer sectors with both the number of submissions to the AHL for IBV testing and the proportion of IBV positives increasing. Genotyping results show that new strains of IBV are continuing to emerge and flocks can be infected with more than 1 strain. In early 2017, the DMV strain was the predominant strain found in 63% of cases.

Flocks infected with different serotypes may show very different signs that can include:

- Small increase in mortality for short amount of time (for ~1 week) in hens.
- Decrease in egg production that is short lived (~ 1 week).
- In broilers, very high bronchitis titers have been noted at slaughter.
- There are inconsistent reports of production target effects or mortality including secondary *E.coli* septicemia.

Additional signs of IBV:

- Chicks may cough, sneeze for 10–14 days.
- Chicks may appear depressed and huddle under heat lamps.
- Feed consumption and weight gain are reduced.
- Infection with strains affecting the kidneys can cause depression, ruffled feathers, wet droppings, greater water intake, and death.
- In layers, egg production may drop by as much as 70%. Mortality could reach 5%, although mortality rates are higher when there are other concurrent infections.

Talk to your veterinarian about the strains found in your flocks to determine best health management measures. Infectious bronchitis virus is fragile, easy to kill if exposed to warmer temperatures or disinfectants, but it will survive longer if protected in organic material.

Poultry Veterinarian Survey Highlights

Broilers

- The increase in **IBV** infections is continuing.
- **Late systemic bacterial infections** (>14 d old) increased this quarter.
- **Early systemic bacterial infections** (<14 d old) were stable.
- **Necrotic enteritis** cases increased, especially in older birds this quarter.
- **Lameness** (viral, bacterial and developmental) continues to be stable.
- Practitioners reported an increase in the number of cases of **ascites**, and the possibility of a relationship to the increase in IBV infections was suggested.
- A small increase in **inclusion body hepatitis (IBH)** was reported, sometimes in combination with IBV and generalized *E. coli*/*E. cecorum* infections but with no reported association to specific breeder flocks.
- A small increase in condemnation issues was noted due to increased cellulitis, abdominal edema (ascites), and wooden breast.

Broiler-Breeders

- Overall the health status of Ontario broiler breeder flocks is stable.
- The increase in **IBV** cases is continuing. Flocks infected with the California strain tend to show drops in egg production and fertility, and production of jelly eggs that do resolve after several weeks. In the case of DMV strain infections, higher mortality spikes and extended fertility drops were seen. Flushing was also reported as a clinical sign in some flocks with both DMV and California strain IBV infections. With flocks that continue to experience waxing and waning production drops and egg quality issues, sequential infections with multiple variants is a possibility.
- Bacterial, viral, and developmental lameness cases remained stable.
- Two cecal coccidiosis cases in 2- 4 week old chicks have been reported.
- Occasional **male aggression** has been seen in few flocks that was corrected with flock management and increased female/male ratios.
- A decrease in early systemic bacterial infections (<14 d old) in broiler breeders was reported this quarter.

Layers

- The health status of layer flocks in Ontario is fairly stable.
- **Infectious bronchitis** infections in layer flocks started to increase in 2016 late fall. The majority of IBV infections have been seen almost exclusively in hens in production, and clinical signs include production drops, production of abnormal eggs, abnormal respiratory signs and mortality, and the variant DMV strain has been the predominant strain. Flocks have responded differently to the IBV infection with no single clinical presentation and no consistent recovery pattern either. Interestingly in the layer industry, IBV infections have dropped markedly since late December 2016 following the release of a biosecurity advisory from the Egg Farmers of Ontario in mid-December.
- A small number of layer flocks raised on floor developed bacterial peritonitis/salpingitis. Coccidiosis and necrotic enteritis has also been seen in 21-24 week old flocks.
- Other industry news: The **Code of Practice for the Care and Handling of Pullets and Laying Hens** was released in 2017. You can access it at: http://www.nfacc.ca/pdfs/codes/pullets_and_laying_hens_code_of_practice.pdf

Turkeys

- Health status of Ontario turkey flocks is stable.
- The number of *Salmonella* serotypes isolated slightly increased.
- One cases of **gangrenous dermatitis/cellulitis** was reported.
- A small number of **fowl cholera** cases were reported by individual practitioners.
- **Early** (<14 d old) and **late systemic bacterial infections** (>14 d old) were stable.
- Slight increase in aggression and cannibalism especially in tom turkeys was noted.

We would like to thank the following poultry veterinarians who completed the veterinary survey: Dr. Elizabeth Black, Dr. Peter Gazdzinski, Dr. Shahbaz Ul Haq, Dr. Kathleen Long, Dr. Rachel Ouckama, Dr. Mike Petrik, Dr. Cynthia Philippe, Dr. Joanne Rafuse, Dr. Fernando Salgado-Bierman, Dr. Ben Schlegel, Dr. Lloyd Weber, and Dr. Alex Weisz.

Updates

- The Small flock disease surveillance project is ongoing, with subsidized testing for a set of postmortem tests on non-quota flocks. More information can be obtained at: http://www.guelphlabservices.com/AHL/Poultry_Flock_Disease.aspx
- 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:

Practitioners: Dr. Rachel Ouckama, Dr. Mike Petrik, Dr. Cynthia Philippe, Dr. Alex Weisz
Animal Health Lab: Dr. Marina Brash, Dr. Emily Martin
OMAFRA: Dr. Csaba Varga Network co-lead, Dr. Tim Pasma, Al Dam
Ontario Vet College: Dr. Michele Guerin
Network Coordinator: Dr. Melanie Barham

Important Poultry Numbers

OMAFRA AICC hotline		1-877-424-1300	
Animal Health Lab		519-824-4120 x 54530	ahlinfo@uoguelph.ca
Chicken Farmers of Ontario Hotline		1-877-SOS-BYRD	
Feather Board Command Centre		289-776-5984	
CFIA emergency line	Reportable diseases only	1-877-814-2342	