



The meeting of the WeCAHN poultry network was held Nov. 18, 2022 reviewing Q3 (July—Sept. 2022)

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1. Dataset Overview

i. HPAI data: laboratory and clinical impressions survey data, other sources.

ii. Practitioners: Clinical Impressions Survey

iii. Laboratory Data:

- Animal Health Centre
- UCVM DSU
- Prairie Diagnostic Services
- Manitoba VDS Laboratory

2. HPAI

i) Wild bird testing:

Wild birds continued to test positive for HPAI across western Canada in Q3 of 2022. Detail on species and testing by province can be obtained at www.cwhc-rcsf.ca/avian_influenza_biweekly_reports.php

ii) Domestic Poultry AI testing Q3 (July – September) 2022

Laboratory	Negative	Positive	Total
PDS	179	28	207
Manitoba VSDL	29	1	30

ii) Western Canadian Poultry AI findings:

The varied clinical picture of HPAI in poultry continued to be a challenge during Q3 2022. Some infected broiler flocks displayed minimal clinical signs, and in some affected layer barns only birds within a very limited area of the barn were affected. Turkeys continued to be hard hit with frequently severe clinical signs.

iv) European AI reporting

European Food Safety Authority Quarterly Report (July – September 2022)

<https://www.efsa.europa.eu/en/efsajournal/pub/7597>

“For wild birds, in 2021–2022 HPAI virus was detected predominantly in waterfowl until the end of April 2022. There was an unprecedented high level of HPAI virus detections in wild birds during the summer 2022, which was associated with an – again unprecedented – high number of HPAI virus detections in domestic birds during this period”

3. Syndromic data

Clinical Impressions Survey:

The purpose of the clinical impressions survey is to be a simple, quick overview of diagnoses by practitioners, which does not require practitioners to extract data from their information management systems to complete (as this can be a major barrier to participation).

It asks practitioners to report, for a list of selected pathogens/syndromes how frequently (never/ rarely/commonly/very frequently, as defined within the survey) they have diagnosed these pathogens over the time period in question. Additionally, they are asked whether, compared to the previous time period) their diagnosis of these pathogens is increasing/decreasing/ or stable.

Laboratory Data:

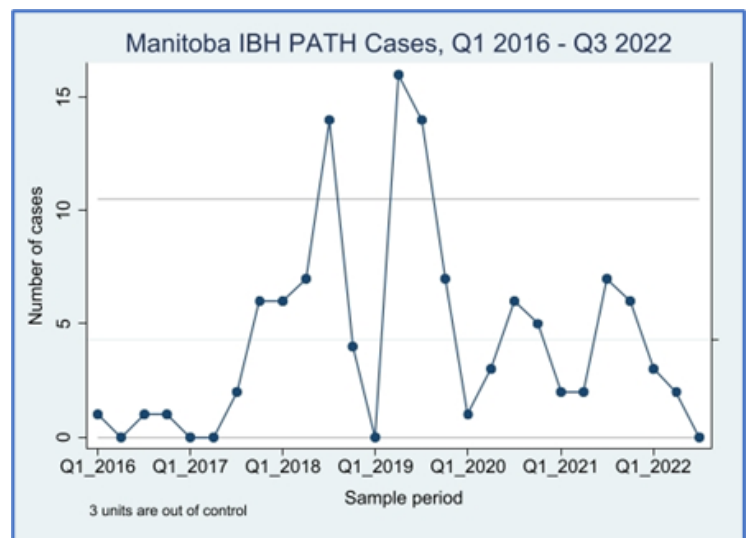
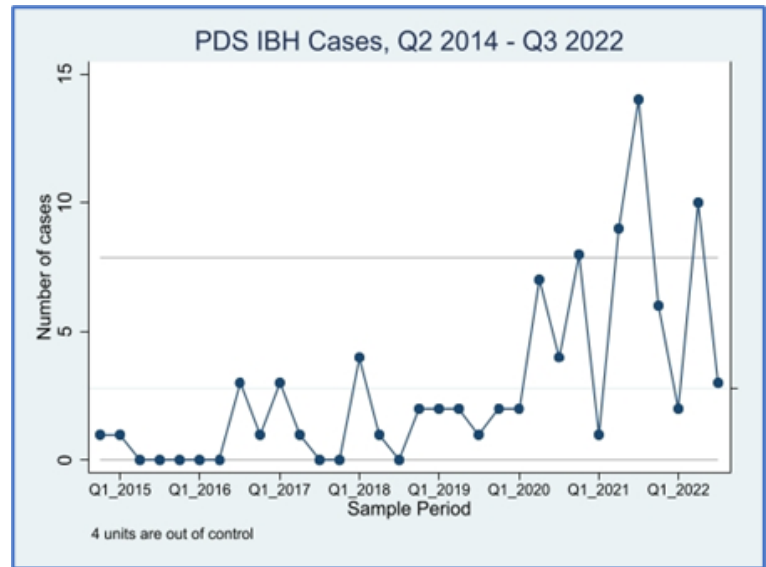
Recap on 'control charts': For each of the following graphs, each data point reflects the number of positive samples or cases reported, over a 3 month period. The upper and lower horizontal lines, called control limits, are similar to statistical confidence intervals.

Control charts are a simple way of presenting data collected over time. Apparent trends (e.g. increasing or decreasing frequencies of detection) over time, or individual points lying outside the control limits, suggest a need for investigation to determine whether/how significant a signal they represent.

a) Broilers

- **Commonly reported conditions (seen Commonly or Very frequently) by 3 or more of the 5 practitioners answering this section:**
- **Early bacterial infection:** reported Rarely to Very frequently by network practitioners, rated Increasing by 1 and Stable by the other practitioners.
- **Late bacterial infection:** reported Rarely to Commonly, and rated Increasing by 1 and Stable by the other practitioners.
- **Blood poisoning caused by *E. coli*** was reported in both 18-23 day broiler chickens and 8 week old turkeys, by the UCVM lab.
- **Yolk sac infections:** reported Rarely (N = 2) to Commonly (N = 2) to Very frequently (N = 2) by practitioners, and rated Increasing by 1, and Stable by the other practitioners.

- **Bacterial lameness:** Reported Commonly to Very frequently by network practitioners, and rated Increasing by 1, and Stable by the other practitioners.
- **Inclusion Body Hepatitis (IBH) :** reported Never to Commonly to Very frequently by practitioners, and rated Stable by all network practitioners.



(Syndromic data, Broilers, continued)

- **Case report: Crop mycosis (aka thrush) associated with IBH immune-suppression:**
- the birds were 21-day old broilers; medication history uncertain. Additional stress due to circulating IBH was thought to be predisposing to birds developing thrush.
- **Condemnation issues:** Cellulitis was reported Rarely to Commonly to Very Frequently by network practitioners, and rated Stable by all practitioners.

Less frequently reported conditions:

- **Coccidiosis:** reported Commonly by 1, and rated Increasing by 1, Stable by the other practitioners.
- **Note from Québec:** Interesting to note that the network's veterinarians claim to have seen, over the past year, a decrease in the effectiveness of certain chemical anticoccidials. Although the use of vaccines for coccidiosis is not very widespread at present, this approach remains an interesting tool in the management of coccidiosis in



b) Broiler-breeders

Commonly reported conditions: None

Less frequently reported conditions:

- **Coccidiosis:** reported Rarely but Increasing by 1 practitioner.
- **Disease-related hatchability issues:** reported Commonly and rated Increasing by one practitioner, and Stable by the others.
- **Histomoniasis (Blackhead)** was reported Never to Rarely, and rated Increasing by 1, Decreasing by 1, and Stable by the other practitioners.

c) Layers

Commonly reported conditions:

- **Bacterial peritonitis/salpingitis (infected abdomen):** reported Never to Commonly to Very Frequently, and categorised Stable by all practitioners completing this part of the survey.
- **Egg yolk-associated infected abdomen:** reported Never to Commonly to Very frequently, and categorised Stable by all practitioners completing this part of the survey.

Less frequently reported conditions:

- **Salmonella isolation:** PDS and Manitoba VSDL

S. Infantis continued to be a frequently reported serovar, with isolation of monophasic Salmonella also reported this quarter in turkeys.

While the profile of specific varieties isolated continues to differ between the two laboratories, in both labs, the trend appears to be increasing S. Infantis isolations over time.

d) Turkeys

Commonly reported conditions:

- **Early bacterial infection:** reported Never to Rarely to Commonly by practitioners, rated Stable by all 4.
- **Roundheart:** reported Rarely to Commonly by practitioners, and rated Stable by all practitioners.
- **Salmonella confirmed by lab isolation:** reported Commonly by 2, and rated Increasing by 1, and Stable by 3 network practitioners. Multidrug resistant *Salmonella* in turkeys was reported by one practitioner.

- **Case report:** *Salmonella enterica* ssp. *enterica* 1:4,[5],12:i:- (monophasic *Salmonella*)

The farm has a history of *Salmonella* in turkeys, which has usually been isolated as an incidental finding and likely not causing death, but an important incidental finding.

Monophasic *Salmonella* was isolated in 3 of 4 barns experiencing losses due largely to colibacillosis. Treatment included antimicrobial for colibacillosis and supportive care.

This form of *Salmonella* is noteworthy since it tends to be multidrug resistant.

Less frequently reported conditions:

- **Late bacterial infection:** reported Commonly by 1 practitioner, and Stable by all.
- **Other early mortality:** reported Commonly by 1 practitioner, associated with poult quality issues and starveout, and rated Stable by all.
- **Yolk sac infections:** reported Commonly by 1 practitioner, and rated Increasing by 2, and Stable by 2, associated with *E. coli* by two and *Salmonella Agona* by one practitioner.
- **Crop mycosis** was listed under “Other” conditions seen in turkeys this quarter, by one practitioner.

e) Smallholders

Commonly reported syndromes: None.

Less frequently seen syndromes:

- **Egg yolk abdominal infection:** reported Commonly by 1 practitioner, and Stable by all.
- **Lameness (bacterial):** reported Very Frequently (N = 1), and Stable by all.
- **Marek’s Disease:** reported Very Frequently (N = 1), and Stable by all.
- **Predators:** reported Very frequently by 1 practitioner, and Stable by all.
- All syndromes continue to be rated Stable by all network practitioners in the Clinical Impressions Survey.

Meeting takeaways:

HPAI continues to have varied clinical presentations, with minimal signs in some broiler and layer flocks, and often severe disease in turkeys.

HPAI detections in wild birds in western Canada are persisting late into the year.

