



The WeCAHN poultry network met May 31st 2024 with veterinary practitioners, producers, provincial veterinarians, diagnosticians, and researchers in attendance, discussing the small ruminant health events of Q1 (January—March) 2024.

Data sources in this report include:

- Clinical Impressions Surveys completed by network practitioners.
- Data shared by western veterinary diagnostic laboratories: Manitoba Veterinary Services Diagnostic Laboratory (VSDL), Prairie Diagnostic Services (PDS), and University of Calgary College of Veterinary Medicine Diagnostic Services Unit (UCVM DSU).
- Western federal poultry abattoir data.

Update: Avian metapneumovirus in Manitoba flocks

Avian metapneumovirus causes respiratory disease (swollen head disease in broilers; rhinotracheitis (inflammation of nose and windpipe) in turkeys.

Severity of disease depends on whether there are secondary infections.

Metapneumovirus is immediately notifiable to CFIA.

Recently in Manitoba:

- Four confirmed turkey growers, two confirmed broiler breeder flock 36 weeks of age. All are aMPV Type A (ON has Type B).
- The disease appears to resolve in approximately 7-10 days, but requires therapy to address secondary bacterial infections.



QUESTION: Avian metapneumovirus has caused large outbreaks of respiratory disease in U.S. poultry this year, and recently also in Ontario turkey flocks. Is this a possibility on western Canada now too?

ANSWER:

- It's definitely on our list and we have tested for it in recent outbreaks here in Alberta, but so far no positives here.
- In MB it's certainly possible.
- In B.C. I think if we look for it, we may find it.

Information gaps:

- This is a virus so can't treat it with antibiotics, and there is no commercial vaccine available.
- Biosecurity is important to prevent introducing it into our flocks.

-In eastern Canada studies have detected the virus previously in Canada geese, and obviously now infected commercial flocks have also been detected in western Canada. So biosecurity programs should consider both as potential sources of infection.



Syndromic surveillance:

Layers

Case report: Coryza outbreak

History: a pullet operation in MB received pullets from ON. As it became over-supplied, the operation reached out to clients in MB, SK and AB inquiring whether they could receive pullets. The birds were delivered in trucks traveling west from Manitoba to Alberta, delivering pullets enroute. When they arrived in AB no one noticed anything unusual with the birds beyond obvious signs of stressed birds, presumably from a long transport. Receiving farms in AB started phoning veterinarians ~ 5 days after the birds arrived.

Clinical signs: respiratory signs including swollen heads, as well as decreased production and mortality.

Diagnosis: Coryza.

Control

- Follow-up was initiated with all flocks receiving the transported birds.
- No de-population [of mature birds] was initiated since these were layer birds. However barns with pullets were either de-populated or moving to AIAO facilities.
- We are working with the egg boards on controlling and stamping out the infection.
- We are also working with them to develop better protocols regarding introductions, including pre-movement testing and minimizing movements.

QUESTION: what was the vaccination status of these birds?

ANSWER: Unclear. The birds originated from many different sources and the vaccination status was not well tracked.

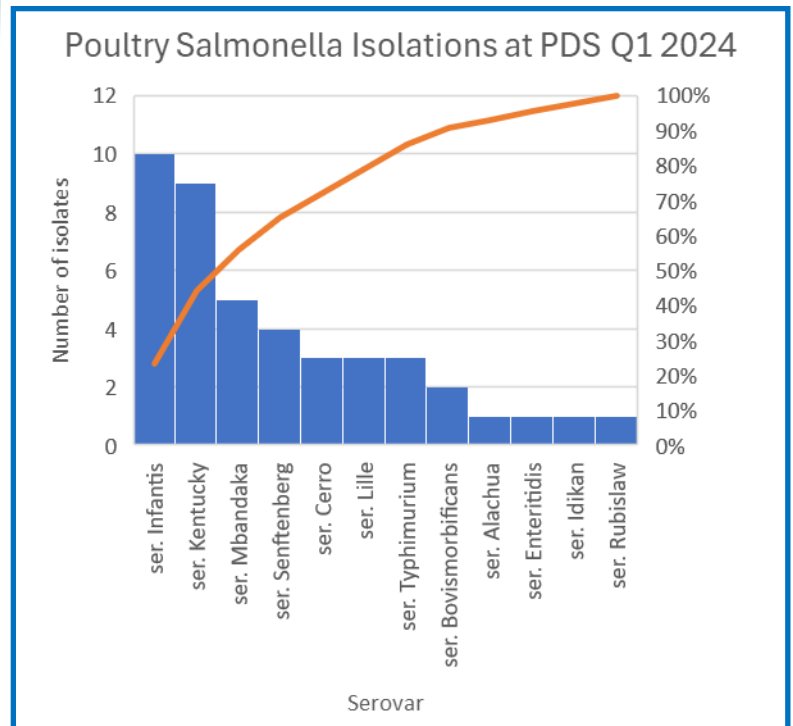
CORYZA OUTBREAK TAKEAWAYS:

- Introduction protocols are always important!
- Best lab samples to submit if Coryza is suspected is whole head from affected birds.

Salmonella testing

Salmonella Infantis continued to be the most frequently isolated poultry serovar in Q1 2024 at PDS. At PDS almost all of these *Salmonella* positives originated from hatchery fluff testing.

Time trend of isolation for *Salmonella* Infantis and *Salmonella* Kentucky continued to be stable relative to the previous quarter.

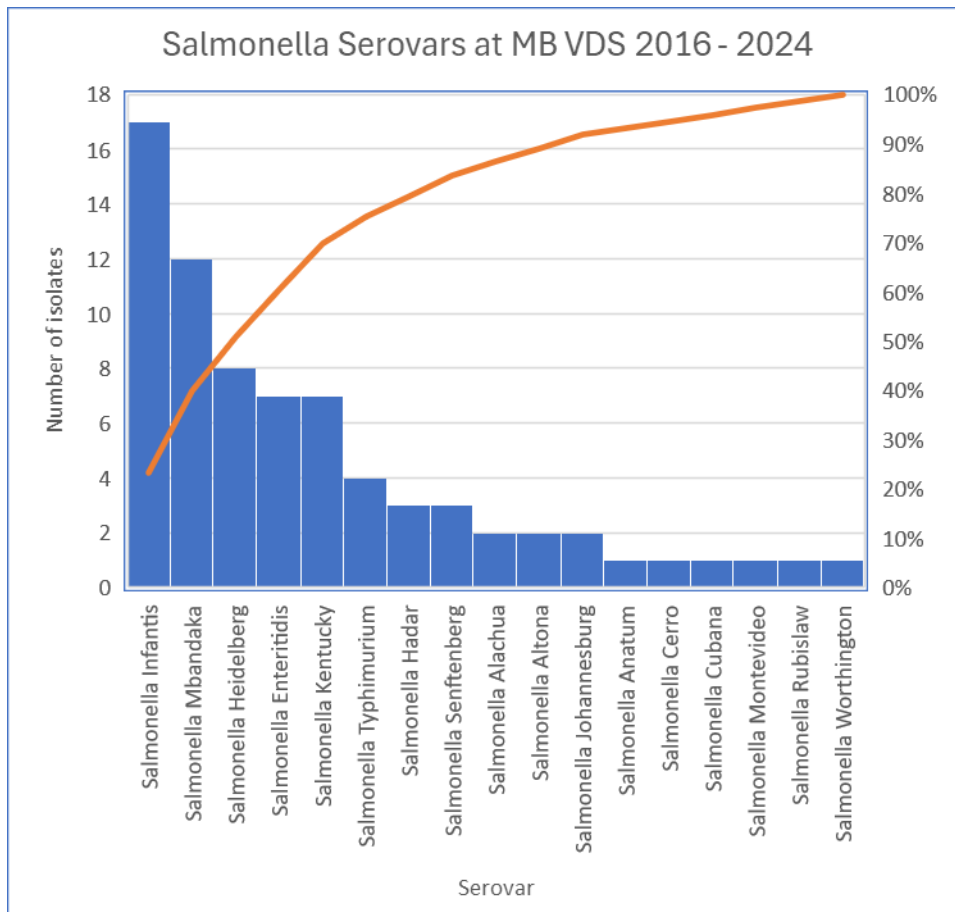
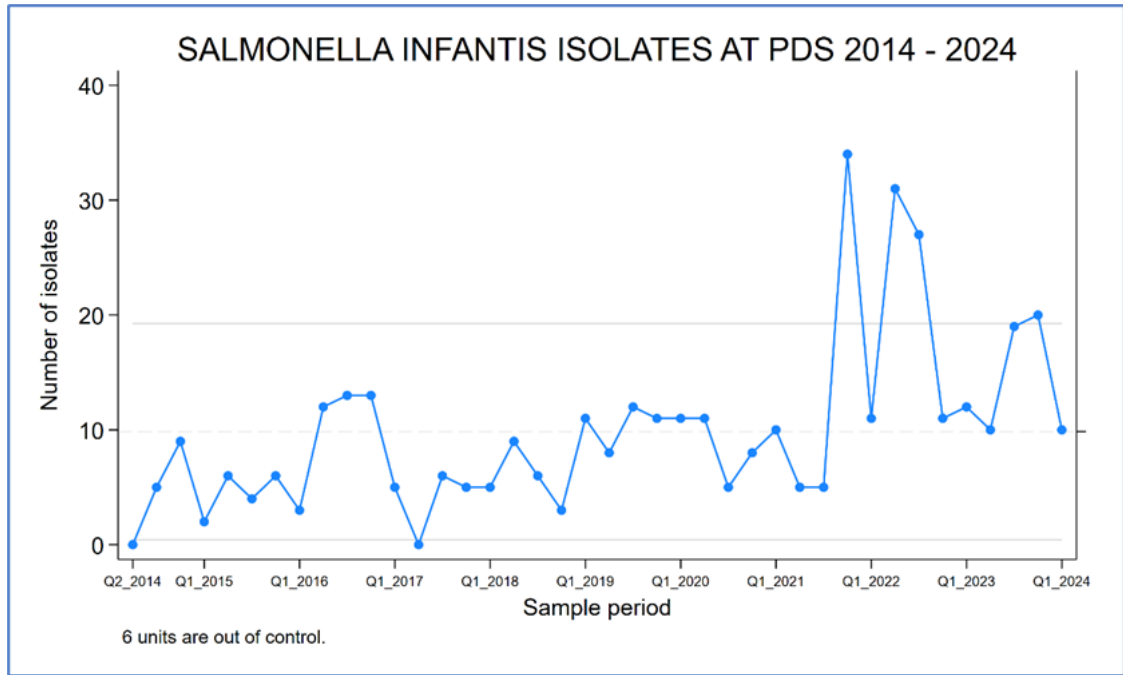


Recap on 'control charts': In the following graphs, each data point reflects the number of positive samples or cases reported by a diagnostic laboratory, over a 3 month period. The upper and lower horizontal lines, called control limits, are similar to statistical confidence intervals.

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 further investigation.

Salmonella Testing continued

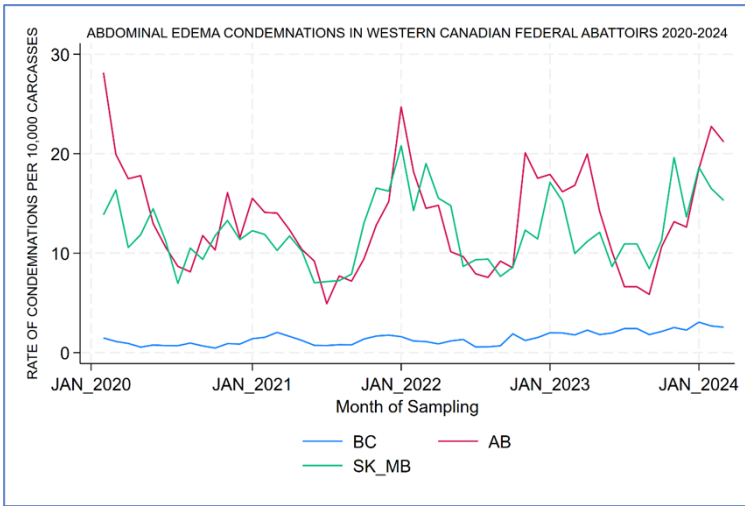
This control chart shows the increase in Salmonella Infantis isolations at PDS from 2021 to 2023, but levels in Q1 (January—March 2024) were stable, as were S. Kentucky isolations (data not shown).



Isolations of S. Infantis and *Salmonella* Mbandaka continued to be the predominate serovars reported at Manitoba VDS. In Manitoba, in contrast with the *Salmonella* testing at PDS, the positives reported originated in a more even split between hatchery and non-hatchery testing.

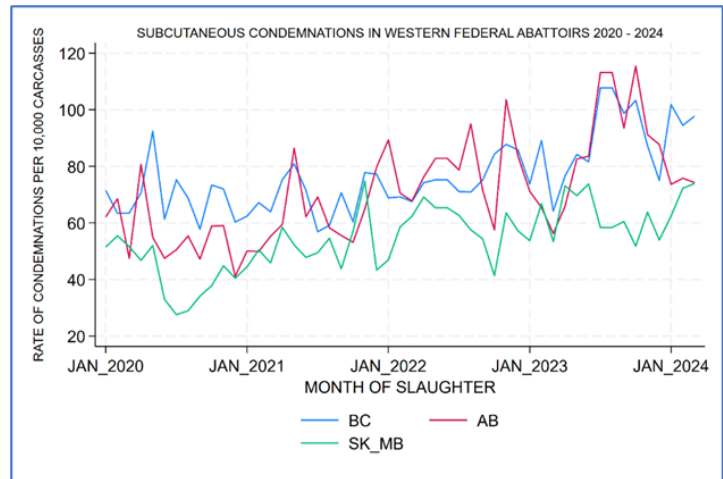


Condemnation issues



Ascites was reported seen Rarely to Commonly and rated **Increasing** by 2 practitioners, with one attributing this to the time of year covered in the survey. At western federal poultry abattoirs, abdominal edema continued to be stable in BC and relatively lower in Alberta and Saskatchewan-Manitoba relative to the previous quarter (October–December 2023).

Cellulitis was reported never to Very frequently but rated Stable by all, although abattoir trends appear to be broadly increasing across the west.



Case Report: Salmonella Enteritidis (SE) in table egg layers

History: veterinarian was called to investigate slight increase in mortality. Barn in question was a converted turkey barn.

Post-mortem:

- Signs of blood poisoning .
- Tissue samples were sent to the provincial lab for culture.

Diagnostics:

- *Salmonella Enteritidis* was grown from the ovary of an affected bird.

Control:

- Barn was found to have rats, a potential reservoir for the pathogen, in the ceiling, and flock was depopulated.

Scan: Metapneumovirus in Ontario

In recent months, multiple states throughout the USA have documented increased cases of aMPV subtypes A and B with significant economic losses, affecting broilers, broiler breeders, layers, cage free organic birds and turkeys.

aMPV is not a food safety or human health concern.

- Clinical signs in turkeys:** aMPV in turkeys has been called turkey rhinotracheitis (TRT) and avian pneumovirus infection of turkeys (APV). Regardless of age, turkey illness ranges from 40 to 100% and deaths ranges from 0.4% to 50%. Clinical signs include snicking, rales, nasal discharge, foamy eyes, swollen sinuses, swollen heads, coughing, open mouth breathing, and head shaking. Severe disease can be identified in 3- to 12-week-old turkeys. In layers there can be up to 70% drop in egg production (range 10-40%) including increased poor shell quality and peritonitis. Recovery can take up to 3 weeks.
- Clinical signs in chickens:** disease caused by aMPV in chickens, guinea fowl and pheasants has been called Swollen Head Syndrome (SHS). The disease is not as well defined in chickens and can be subclinical (no obvious signs of illness). Less than 4% of the flock can be affected. Deaths are usually less than 2%. Egg production in broiler breeder and egg quality in egg layers is affected. Clinical signs can include swollen sinuses, crooked back or neck, and disorientation.

For more information: <https://www.oahn.ca/news/avian-metapneumovirus-ampv-detected-in-ontario/>

Meeting takeaways

- In the avian metapneumovirus cases reported this year in the U.S. and Ontario, the severity of illness depended on secondary infections and quality of management. “So it can look like anything”.
- Protocols for introduction of birds into barns are important and can’t vary because of external circumstances.
- The *Salmonella* Enteritidis (SE) outbreak shows the importance of the flock vet’s perspective in choosing appropriate diagnostics and guiding the farm’s response. In contrast with increased mortality associated with other bacteria, SE requires a quick and coordinated response to minimize the public health impact.

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