

Issue 66 December 2023

OLPC 2024 Membership Meetings

In-person meetings will be at Beef Farmers of Ontario, 130 Malcolm Road, Guelph.

- February 9, 2024 - virtual
- April 12, 2024 - virtual
- June 14, 2024 – in person
- August 16, 2024 - virtual
- October 11, 2024 – in person
- December 13, 2024 - virtual

Extensively Drug-Resistant Salmonella

The Public Health Agency of Canada in collaboration with provincial public health, the Canadian Food Inspection Agency and Health Canada are investigating at least 40 confirmed cases of extensively drug-resistant Salmonella-illness in six provinces. Many of those who became ill are children five years of age or younger. Individuals became sick between July 2020 and September 2023.

To date, two sources have been identified in the investigation: exposure to raw meat for pet food and contact with cattle, particularly calves. The fact that it is extensively drug-resistant is why this is of significant concern. For additional details, [click here](#).

Bovine Tuberculosis

In February, the USDA notified the CFIA that tissues collected at slaughter from a heifer originating from Canada tested positive for bovine tuberculosis. The animal was exported from Saskatchewan in September 2022 and was in a US feedlot until its slaughter.

During the trace out from the Saskatchewan herd, two animals were identified to be in Ontario feedlots. The steers were slaughtered and tested. No lesions or other symptoms of concern were noted, and histology was negative. Producers were compensated for the animals.

Avian Influenza

Ontario has had only one case of Avian influenza this fall. It was a small poultry flock which did not necessitate a control zone. The fall cases have primarily been in British Columbia and Alberta. The chart below shows the active cases as of December 21, 2023.

| Province | Commercial Restricted Zones | Commercial Infected Premises | Security Zones | Non-commercial Restricted Zones |
|--------------|-----------------------------|------------------------------|----------------|---------------------------------|
| BC | 7 | 39 | 5 | 1 |
| Alberta | 3 | 3 | 2 | |
| Saskatchewan | | | 3 | 1 |
| Manitoba | | | 1 | |
| Quebec | 2 | 3 | | |

Highly Pathogenic Avian Influenza H5N1 Virus Infection in Animals

Since 2021, at least 12 different animal species, including some companion animals, such as household cats and dogs, have been reported to be infected by the HPAI virus H5N1 in more than nine countries.

Avian influenza viruses normally spread among birds, but the increasing number of H5N1 avian influenza detections among mammals, which are biologically closer to humans than birds, raises concern that the virus might adapt to infect humans more easily. In addition, some mammals may act as mixing vessels for influenza viruses, leading to the emergence of new viruses that could be more harmful to animals and humans. The World Health Organization issued a statement in July regarding the ongoing avian influenza outbreaks in animals and whether this poses a risk to humans. To read the statement, [click here](#).

In addition, in October, a research summary entitled, *Highly pathogenic avian influenza H5N1 virus infection of companion animals*, was published on-line in the journal *Virulence*. [Click here to access the article](#).

There is an initiative in Ontario to conduct Avian influenza surveillance in feral cats. Dead animals can be submitted through the local Public Health Unit. They will be tested for rabies and HPAI. Cats can contract Avian influenza either by inhalation or by consuming a dead positive bird. The way the cat contracts the virus results in different manifestations.

Human Avian Influenza A (H5N1) Cases in Cambodia

In November, Cambodia reported two additional confirmed cases of human infection with influenza A (H5N1). Both cases were from the same village and were female, one in the 20-25 years age group and the other less than five years old.

The first reported case visited a public hospital four days after having symptoms of fever, shortness of breath and cough. Samples were collected, which tested positive for H5N1, and the case died while in hospital. The second reported case was detected during enhanced

Canadian Public Health Association Infectious Disease and Climate Change Webinar Series

The Canadian Public Health Association hosted a webinar on October 10, 2023 discussing the emergence of West Nile virus (WNV) and Lyme disease as significant health concerns in Canada, particularly in the Windsor-Essex County area.

The study revealed that increasing temperatures in January and February, along with more days exceeding 30°C in May, contribute to higher rates of WNV-positive pools and annual WNV cases. The findings suggest that health units should adjust their strategies for managing vector-borne diseases based on these climate-related parameters to better assess and communicate risks to the public for effective health protection.

You can watch the recorded webinar [by clicking here](#).

Rabies Numbers in Ontario and Canada for 2023

As of November 30, 2023, there were 2,268 samples submitted for rabies testing from across Canada. Nationally, 113 samples tested positive. Ontario accounted for 1,368 samples of which 56 tested positive. The breakdown from which species the positive samples were taken are as follows:

| | Can. | Ont. |
|--------------|------------|-----------|
| Arctic fox | 7 | |
| Bat | 79 | 49 |
| Bovine | 1 | |
| Cat | 1 | 1 |
| Dog | 3 | |
| Raccoon | 6 | |
| Red fox | 5 | |
| Skunk | 11 | 6 |
| Total | 113 | 56 |

surveillance by the public health authorities in response to the confirmation of the first reported case. The case had fever, cough and rash and is currently being treated in hospital.

Epidemiological investigation shows both cases had exposure to backyard birds, which were reported to be sick, with some having died, over the prior month. In total, six cases of H5N1 have been reported from Cambodia this year of which four have died. H5N1 infection in humans can cause severe disease, has a high mortality rate, and is notifiable under the International Health Regulations (2005). It is important to note these cases had the Cambodian clade of H5N1, the virus we have in Canada is slightly different.

Additional details can be found on the World Health Organization website, [click here](#).

Canadian Global Food Animal Residue Avoidance Databank

At the December OLPC meeting, members heard a presentation by Dr. Trisha Dowling, Co-director of CgFARAD™ located at the University of Saskatchewan. Dr. Dowling gave an overview of the role of the service and a summary of requests during 2022-2023.

The main role of CgFARAD™ is to:

- keep the human food supply safe;
- ensure residue levels fall within regulatory parameters; and,
- encourage antimicrobial stewardship.

Where licensed products for a species or a specific condition are not available, veterinarians are legally permitted to prescribe drugs extra label for disease indications, doses, or duration of treatments that differ from approved drug labelling. But extra label drug use (ELDU) means that label withdrawal times for meat, milk or eggs no longer apply. In these situations, CgFARAD™ ensures food safety by providing veterinarians with unbiased veterinary pharmacological expertise on withdrawal times and undertakes research where insufficient information on withdrawal times exists.

The number of requests received by CgFARAD™ continues to grow. There were 3,142 withdrawal requests in 2022-2023. The number has been increasing by an average of 200 per year but last year there was a significant increase of 493 requests, a 19% increase over 2021-2022. Losing labeled veterinary pharmaceuticals results in more ELDU and therefore more requests. Recent examples include the loss of all approved short-acting oxytetracycline products that were widely used, especially in dairy cattle, and the loss of all lactating cow intramammary antimicrobials with the exception of two cephalosporin drugs.

In all types of chickens, coccidiosis and necrotic enteritis continue to be the predominant diseases that require extra-label drug use (ELDU). Mites and lice are problematic both in commercial birds and backyard flocks.

In dairy cattle, treatment of bovine respiratory disease and mastitis continue to be the most common reasons for ELDU followed by treatment of digital dermatitis and pain and inflammation. Accessing products for pain, inflammation, and sedation are also issues for swine.

Due to limited drug approvals and bacterial and parasite resistance, antimicrobials, coccidiostats and dewormers are the most commonly used products for ELDU in sheep and goats.

Since 2017, the CgFARAD™ has received 197 requests involving feed mill errors, primarily involving poultry and the antimicrobials and coccidiostats used to control necrotic enteritis and coccidiosis. In many cases, there is little to no risk of a detectable residue or human food safety issue. In other cases, it is recommended the product from the exposed animals is tested to ensure human food safety.

Our Mission

Provide a forum to facilitate the development and coordination of an Ontario strategy to deal with foreign animal disease and other transmissible livestock and poultry diseases.