

# Veterinary Diagnostic Services Lab Notes

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## Veterinary Diagnostic Services Staff Spotlight

### Dr. Vasyl Shpyrka, Veterinary Pathologist



Vasyl recently completed his Master of Science degree in Veterinary Pathology at the University of Saskatchewan. He also holds a Doctor of Veterinary Medicine degree from the National University of Life and Environmental Sciences of Ukraine. Following this degree, Vasyl passed the National Examining Board (NEB) examination and was granted a Certificate of Qualification.

Originally from Ukraine, Vasyl worked in the pork industry in Canada and Denmark. Some of you may already know Vasyl through his previous role as a provincial meat inspector which increased his interest in pathology. He has returned to work for

Manitoba Agriculture, but this time as a veterinary pathologist in Veterinary Diagnostic Services (VDS). He looks forward to working again in Manitoba and helping provide answers to conditions that affect animals, large or small, including livestock, companion animals, and wildlife.

In his spare time, Vasyl enjoys staying active through working out at the local gym.

## Highly Pathogenic Avian Influenza – a Manitoba Perspective

As spring migratory season approaches for wild waterfowl, Highly Pathogenic Avian Influenza (HPAI) is a disease on the mind of many poultry owners. This highly contagious viral infection is federally reportable and can affect many poultry species, including chickens, turkeys, domestic ducks and geese, pheasants, guinea fowl, and quail. During 2022, a total of 21 premises in Manitoba were infected with HPAI. The outbreak response, which is managed by the Canadian Food Inspection Agency (CFIA), involves the humane destruction of poultry on an infected premise, safe disposal of infected materials, cleaning and disinfection of the premise using approved methods, and intensive disease surveillance within an established control zone.

Poultry owners are urged to monitor their birds closely and report any increases in sudden death, significant drops in egg production or respiratory signs to their veterinarian or local CFIA office.

Small flock owners are reminded that Manitoba Agriculture offers the Small Flock Avian Influenza Program, which subsidizes the costs associated with testing small flocks experiencing high levels of mortality or large drops in egg production. Further details can be found on the [Small Flock Avian Influenza Program Website](#).

### Holiday Closures

VDS will be closed on the following days:

- Good Friday – April 7, 2023
- Easter Monday – April 10, 2023
- Victoria Day – May 22, 2023

### VDS Team

- Dr. Scott Zaari – Chief Veterinary Officer
- Shannon Korosec – VDS Manager
- Dr. Md Niaz Rahim – Molecular Biologist
- Dr. Neil Pople – Anatomic Pathologist/ Veterinary Microbiologist
- Dr. Marek Tomczyk – Anatomic Pathologist
- Dr. Brenda Bryan – Anatomic Pathologist
- Dr. Karlyn Bland – Clinical Pathologist
- Cheryl Friday – Supervisor, Microbiology
- Tracy Scammell-LaFleur – Supervisor, Virology
- Rhonda Gregoire – Supervisor, Clinical Pathology
- Agnieszka Gigiel – Supervisor, Accessioning
- Genedine Quisumbing – Quality Assurance Officer
- Sharon Niebel – SAP/Revenue Clerk
- Lindsay McDonald Dickson – SAP Clerk
- Barb Bednarski – Client Services Coordinator/Reception

## Protecting Flocks From HPAI

Many strategies can be implemented in order to protect your flocks from disease, some of which include:

- Minimize your flock's contact with wild birds by housing birds indoors or within enclosed coops, especially during waterfowl migration season.
- Limit your flock's exposure to visitors.
- Keep poultry housing, tools, clothing and boots clean.
- Clean and disinfect feeders and waterers frequently, and prevent access by wild birds.
- Clean up feed spills promptly and store manure away from your flock.
- Purchase chicks from reputable sources, such as licensed hatcheries.
- Ensure that your property has a Manitoba Premise Identification (PID) Number. All livestock and poultry owners in the province are required to have a PID Number, as it allows rapid contact should a disease, such as HPAI, be detected nearby.

If HPAI is reported in wild or domestic birds in your rural municipality, owners are advised to:

- Move your poultry indoors to ensure that your birds do not have contact with wildbirds.
- Refrain from moving, trading or showing birds.

## Rabies in Churchill, Manitoba

**Dr. Alexandra Jerao, One Health Veterinarian**

In the spring of 2022, Churchill had a 400% spike in arctic fox rabies which resulted in multiple human and domestic animal exposures. Manitoba Rabies Central, a One Health collaborative group between Public Health, Agriculture, and Wildlife, partnered with the town to establish a Churchill Rabies Risk Management Working Group. In June 2022, the group met to discuss Churchill's specific risk factors. Together, they determined six key areas of rabies risk management based on Churchill's needs and assets: rabies awareness, dog safety education, wildlife deterrents, dog vaccination, fox vaccination, and continued collaboration over the next several years. Priority was given to eliminating food sources for wildlife, promoting rabies awareness within the town, particularly emphasizing dog bite prevention and dog safety to school children, and promoting dog vaccination.



**Picture (above):** Dr. Alex Jerao, One Health Veterinarian with Manitoba Agriculture, presenting on Rabies in Wildlife to children in Churchill.

*Photo courtesy of Dr. Alex Jerao*

A rabies awareness campaign began in January 2023, focusing on arctic foxes and other wildlife as rabies vectors. Dr. Alexandra Jerao, our Rabies & One Health Veterinarian, lead a town-hall style information session to encourage community discussion about the risk of rabies. Information on wound management, post-exposure treatments, and dog vaccination was emphasized. The working group also presented to the school on wildlife safety, dog bite prevention, dog body language, and zoonotic disease.

## Staff Retirements



**Maureen Frolick**

*Microbiology Laboratory Technician*

After 32 and half years with VDS, Maureen is retiring.

Maureen first worked for Manitoba Agriculture in 1981 as a STEP student under the Grassland Specialist and the Weed Supervisor in Manitou. In 1984, Maureen served as the Assistant Agricultural Representative out of the Beausejour Agriculture Office. Maureen graduated from Red River Community College in 1990 after completing the Biological Laboratory Technology program, followed by spending 15 years in the post mortem room at VDS. In 2002, Maureen completed her Bachelor of Science in Animal Science and in 2006, Maureen moved to the Microbiology section at VDS, where she currently works.

Maureen will be splitting her retirement between the family farm in Dugald, where she has lived since 2008, and their cabin at Victoria Beach. Maureen is looking forward to canoeing, biking, cross-country skiing, continuing to volunteer for the Winnipeg Folk Festival and participating in the annual Manitoba Nocturnal Owl Survey.

We thank her for her hard work and dedication and wish her the best in her retirement.

# Case Report – *Salmonella* Enteritidis in a Layer Flock

Dr. Glen Duizer, Animal Health Surveillance Veterinarian

On July 11, 2022, an egg layer flock in Manitoba was confirmed positive for *Salmonella* Enteritidis (SE) from samples collected on June 23, 2022 as part of the Egg Farmers of Canada national SE surveillance program. The testing was conducted through the VDS and the results reported to the Chief Veterinary Office (CVO). As SE in poultry is a provincially reportable disease, the CVO and Manitoba Egg Farmers initiated a joint investigation under the Department of Agriculture's Animal Disease Investigation Program. The flock was comprised of 7000 birds, 30 weeks old at diagnosis. There was no reported increase in mortality and the birds were otherwise healthy. No eggs from the flock had been widely distributed for human consumption. However, a small number of farm gate sales from the flock had occurred for 3 weeks prior to the positive test. Two flocks with contact to the infected flock were identified, one younger flock in an adjacent barn on the same site and another located on a site close by. Unfortunately, the second flock had been raised for sale to small flock producers and had already been dispersed to multiple locations across Manitoba and Northwestern Ontario.

A complete investigation occurred involving public health and other stakeholders. Quarantine and biocontainment measures were implemented by the producer on the affected premises. Additional surveillance was conducted on trace out flocks. The use of advanced diagnostics (Whole Genome sequencing) assisted in detecting a human case of SE potentially linked to the affected flock through farm gates sales. No other poultry flocks linked to the affected flock were found positive. The affected flock was humanely euthanized on July 22, 2022 and all remaining eggs from the flock sent for further processing and pasteurization. The premises was cleaned, disinfected and confirmed negative for SE on December 22, 2022. While a definitive source of SE to the flock was not identified, contamination of the barn by rodents was considered the most likely cause.

SE is a zoonotic bacterial pathogen that can cause gastrointestinal illness. SE can come from many sources, including poultry and poultry products. Much of Canada's commercial poultry sectors have implemented regular surveillance and controls for SE, including for egg production, grading and distribution. SE is one of the primary reasons poultry and poultry products should be cooked prior to consumption, regardless of the source. SE typically causes little or no clinical illness in poultry, often only affecting chicks less than 14 days of age. However, infected poultry can shed SE for their entire lives, through feces, on the surfaces of egg shells and inside egg yolks. As a result, it is often necessary to remove infected layer flocks from production to prevent zoonotic disease and prevent spread to other flocks. Rodents are considered a significant source of SE to poultry flocks and regular rodent control is an integral part of any flock's biosecurity. National biosecurity programs for commercial poultry flocks require implementation of rodent control programs. As SE is a provincially reportable disease, commercial producers, small flock owners and veterinarians in Manitoba are required to report suspected cases of SE in poultry to the Manitoba CVO.

## FAD Accreditation

Dr. Neil Pople, Anatomic Pathologist and Veterinary Microbiologist

Manitoba Agriculture is investing in renovations to a portion of the VDS Virology space so that it will meet the CFIA containment standards for Foreign Animal Disease (FAD) Laboratories. VDS is already an active network laboratory within the Canadian Animal Health Surveillance Network, but this new space will allow VDS to more fully participate in major animal disease events. Acquiring certified FAD laboratory space will create more testing capacity within Manitoba to support the CFIA's National Centre for Foreign Animal Diseases during outbreaks.



**Sandy Zaari is hoping that everyone stayed warm during the winter months!**

### Did You Know...

Manitoba is home to the world's largest marl lake, Little Limestone Lake. Located north of Grand Rapids, this type of lake experiences water colour changes when temperatures fluctuate.

### Veterinary Diagnostic Services Contact Information

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