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## Memo

To: Equine owners registered in Alberta's Premises Identification database

From: The Office of the Chief Provincial Veterinarian

October 4, 2023

### **Subject: West Nile Virus Risks**

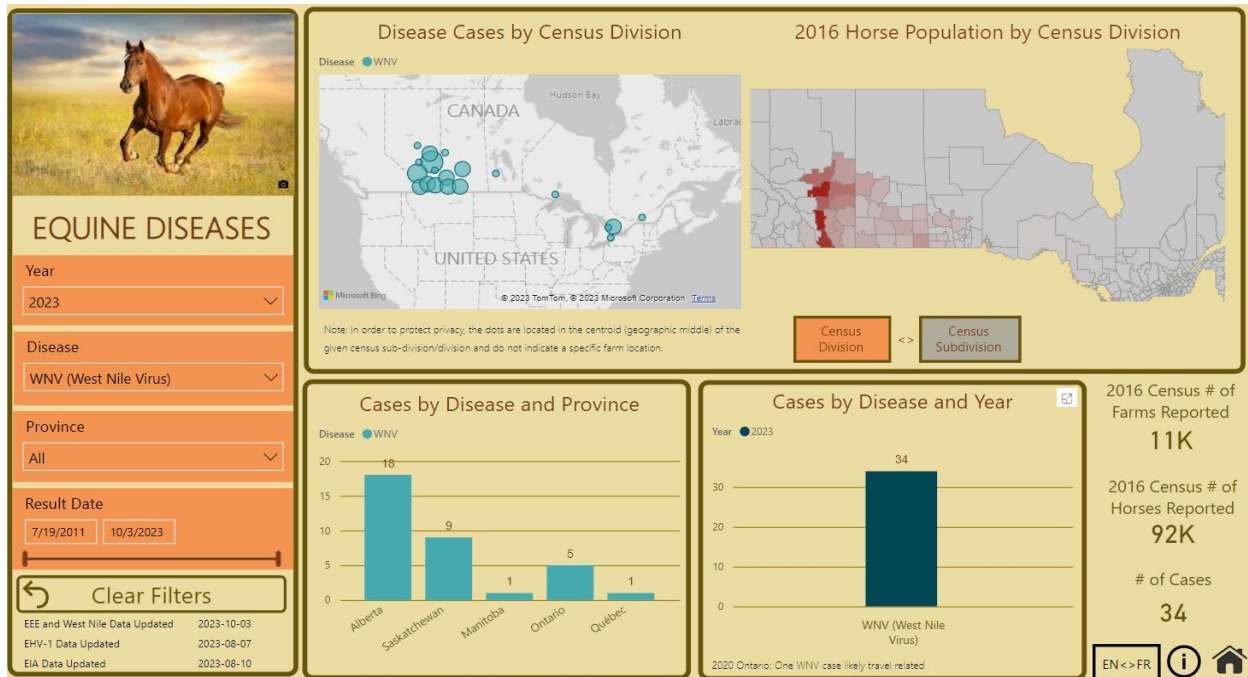
The Office of the Chief Provincial Veterinarian has partnered with the University of Calgary Faculty of Veterinary Medicine to provide this important notice for equine owners registered in Alberta's Premises Identification database.

In recent months, Alberta has seen an increase in neurologic cases of West Nile Virus (WNV) in horses. As of October 3, 2023 there have been 18 laboratory confirmed positive cases reported to the Office of the Chief Provincial Veterinarian. This is likely an underestimation of the true number of cases as many horses go untested or may show mild non-specific signs of disease not immediately recognized as WNV. Most confirmed WNV cases occurred in horses that were either unvaccinated or had an unknown vaccination history.

WNV can be fatal for horses who contract the disease. West Nile Virus can cause inflammation of the brain and spinal cord resulting in death in about one third of cases that show clinical signs of infection. Unfortunately, there is no specific treatment for WNV in Canada and infected horses often require intensive supportive care, including anti-inflammatories, pain medications, and intravenous fluids. Approximately 40% of horses that survive infection may have ongoing neurological issues, such as gait and behavioral abnormalities, six months post-diagnosis. While WNV is not contagious between horses, it can closely resemble equine herpes virus-1 myeloencephalopathy (EHV-1) which is a very contagious virus requiring isolation of horses to prevent the disease from spreading. Therefore, isolating a horse showing neurological signs and testing for both viral diseases is strongly recommended.

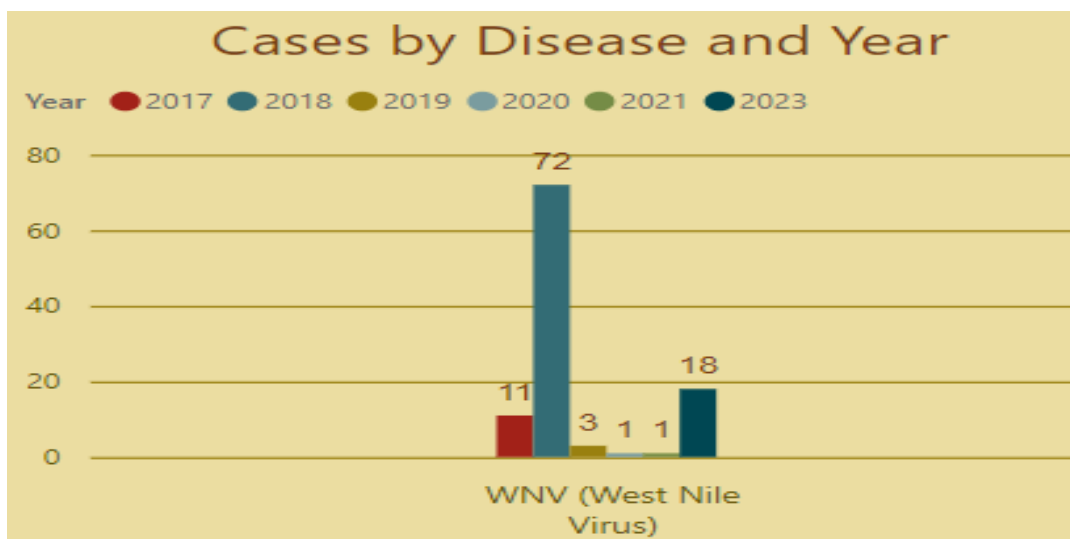
While Alberta is not traditionally considered a hot bed for West Nile Virus, we currently have more cases in 2023 than any other province in Canada. Several factors likely contribute to this surge including:

- Horses in Alberta are less frequently vaccinated for WNV than many other provinces, and
- new species of mosquitos have migrated into Alberta beyond their normal geographic range and may be contributing to the increased virus transmission in Alberta (see reference below for more information).



**Figure 1:** Screenshot of the Equine Disease Dashboard (link below) showing 2023 reported WNV cases in Canada as of October 3, 2023.

Vaccination for WNV is considered part of the veterinary recommended core vaccination protocol. It is an essential standard of care for all horses in North America due to the severity of the disease and the high safety and efficacy of the WNV vaccine. Traditionally in Alberta, vaccination for WNV is performed early in the spring to ensure the horse produces enough protective antibodies prior to their exposure to early mosquitos. This year we have seen WNV cases in horses extend into the fall and with mosquitos still present, horses continue to be at risk of catching WNV. If your horse was not vaccinated for WNV during the spring of 2023, please consult with your veterinarian to discuss a fall vaccination plan. It is important for horse owners to know that it is not too late this year for WNV vaccination especially if we have mild fall weather that prolongs the mosquito season.



**Figure 2:** Screenshot of the Equine Disease Dashboard (link below) showing reported WNV cases in Alberta from 2017 to October 3, 2023.

Chief Provincial Veterinarian  
Alberta Agriculture and Irrigation  
Government of Alberta

Associate Dean of Clinical Affairs  
Associate Professor (Teaching), Equine Clinical Sciences  
University of Calgary, Faculty of Veterinary Medicine  
Vice-Chair Canadian Animal Health Surveillance System Steering Committee

Equine Disease Communication Center (EDCC) with disease alerts from Canada and the USA:  
<https://equinediseasecc.org>

Canadian Animal Health Surveillance System (CAHSS) Equine Network:  
<https://cahss.ca/cahss-networks/equine>

American Association of Equine Practitioners Core Vaccination Guidelines including WNV recommendations for various life stages (adult, foal, pregnant etc):  
<https://aaep.org/guidelines/vaccination-guidelines/core-vaccination-guidelines>

Invasive mosquitos in Calgary and Edmonton, University of Calgary Faculty of Veterinary Medicine research: <https://ucalgary.ca/news/invasive-mosquito-can-carry-west-nile-virus-detected-calgary-and-edmonton>