



Disease Alert:

Eastern Equine Encephalitis in New York State

On July 27, 2012, the New York State Department of Health and the Department of Agriculture and Markets confirmed the state's first 2012 case of Eastern Equine Encephalitis (EEE) in a horse living near the Ontario-New York State border, east of Brockville, ON, in St. Lawrence County, near Ogdensburg, NY.

The Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) would like to request that the veterinary community consider EEE in horses with neurological signs and assist in identifying positive cases through appropriate testing. Signs of EEE (such as circling, head-pressing and convulsions) can mimic a variety of encephalitides including rabies, West Nile Virus (WNV), botulism, hepatic encephalopathy, equine protozoal myeloencephalitis (EPM), tetanus, equine herpes virus 1 (EHV-1), lead poisoning, and others. Most equine cases of EEE occur between August and September, although cases can occur into October if environmental conditions permit the survival of the mosquito vector species.

The 8-year-old gelding had no vaccination history and no history of travel outside the county. The horse started to show signs of the disease on July 23 and died later that day. Samples were sent to the New York State Department of Health's Wadsworth Center to confirm the diagnosis of EEE. The horse tested negative for rabies and West Nile virus. Other horses residing on the affected horse's home premises are not showing any signs of EEE.

Historically, equine EEE cases in upper New York State have been associated with EEE virus activity on the Ontario side of the border. Ontario's local public health units are currently conducting mosquito surveillance. Birds are the natural host for the virus, which is transmitted to horses and humans by mosquitoes which have bitten an infected bird. While the mosquito species considered to be the main vector species for transmission of EEE have been found in the province, none have tested positive for EEE virus to date.

EEE affects mainly equine species in eastern North America, but can occasionally cause severe disease, including permanent brain damage or death, in humans. . The mortality rate in horses is high. EEE has also caused fatal infections in pheasants, quail, captive whooping cranes, emus, and most recently dogs.

In 2011, Ontario had four equine EEE cases, with a probable but unconfirmed fifth case, as well as an outbreak of EEE in pheasants.

Positive equine cases of EEE in Ontario, when identified, will be followed up by the local public health unit to determine whether the exposure of the horse was local or travel-related, and the vaccination status of the horse. The public health unit will also ensure that human exposures to mosquitoes in the area which may potentially be carrying EEE are minimized. Depending on the time of year, the owners of properties on which a positive equine EEE case is diagnosed may be asked to allow public health mosquito traps to be placed around their property for surveillance purposes – there is no cost to the property owner for this. A similar response will occur in the case of a positive equine WNV case.

Effective equine vaccines for EEE are available and veterinarians should ensure that vaccinations are up-to-date in their clients' animals. There is no vaccine for humans and no treatment, other than supportive, once a person is infected.

Questions with respect to veterinary public health issues or responses in Ontario should be directed to:

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