West Nile virus (WNV) is a viral disease that can cause encephalitis or meningitis, infection of the brain and the spinal cord or their protective covering. Prior to 1999, the disease was found only in Africa, Asia and southern Europe. Since 1999, WNV has spread throughout North America and has continued to cause disease in the United States. The yearly number of cases and fatalities has fluctuated depending on the weather conditions throughout the nation.

<table>
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<th>Year</th>
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<tbody>
<tr>
<td></td>
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WNV is spread to people by the bite of an infected mosquito. The principal transmitter of WNV is the northern house mosquito (Culex pipiens). Mosquitoes first become exposed to the virus when they feed on birds that are infected with WNV. Once the mosquito is infected, it may transmit the virus to people or other animals when it bites them. Many birds can be infected with WNV, but crows and blue jays are most likely to die from the infection. Horses, too, are prone to severe WNV infection. People cannot get WNV from another person or from a horse that has the disease.

There is no vaccine currently available for WNV for people or most animals. However, there are vaccines available for horses, which represent 96.9 percent of all reported nonhuman mammalian cases.

WNV has become endemic in the United States and remains a serious disease threat; however, the number of cases and deaths vary significantly as climatic conditions vary by region from year to year. Sporadic seasonal epidemics will continue to occur in various regions of the country when weather and environmental conditions are most suitable. State, federal and local agencies continue to work together to address the health risks of WNV to Ohio families and their animals. Mosquito control efforts are often increased in urban areas during the summer to protect people from potential exposure to the disease.

Q. HOW CAN A HORSE GET WNV?
A. Horses become infected with WNV after being bitten by an infected mosquito. There is no evidence that horses can transmit WNV to other horses, birds or people.

Q. WHAT ARE THE SIGNS AND SYMPTOMS OF WEST NILE ENCEPHALITIS IN HORSES?
A. In horses that do become clinically ill, the virus infects the central nervous system, and causes symptoms of encephalitis. Clinical signs of encephalitis in horses include loss of
appetite and depression, in addition to any combination of the following signs: fever, weakness or paralysis of hind limbs, muscle fasciculations or muzzle twitching, impaired vision, ataxia (incoordination), head pressing, aimless wandering, convulsions, inability to swallow, circling, hyperexcitability or coma.

Q. DO ALL HORSES WITH CLINICAL SIGNS OF ENCEPHALITIS HAVE WEST NILE ENCEPHALITIS?
A. Other diseases, including rabies, botulism, equine protozoal myeloencephalitis (EPM) and other mosquito-borne viral encephalitic diseases of horses caused by Eastern, Western and Venezuelan encephalitis viruses, can cause a horse to have symptoms similar to WNV. If you are concerned your horse may be exhibiting signs of encephalitis, please contact the Ohio Department of Agriculture or your local veterinarian. Only laboratory tests can confirm the diagnosis of West Nile encephalitis.

Q. IS THERE TREATMENT FOR WEST NILE ENCEPHALITIS IN HORSES?
A. Currently, there is no specific treatment for West Nile encephalitis in horses. Supportive veterinary care is recommended.

Q. IS THERE A VACCINE TO PROTECT MY HORSE FROM WNV?
A. Currently, there are four vaccines available against WNV. It is imperative that horses are vaccinated according to the label on the vaccine. At least one yearly booster is recommended after the initial series. Horses that are stressed, such as show and race horses, should have two boosters annually, in April and late July. Horses vaccinated against Eastern, Western and Venezuelan equine encephalitis are not protected against WNV.

Q. HOW CAN I PREVENT MOSQUITOES FROM AFFECTING MY HORSES?
A. Here are some easy steps you can take to prevent mosquitoes from affecting your horses:

- House horses indoors during peak periods of mosquito activity (dusk and dawn).
- Avoid turning on lights inside the stable during the evening and overnight, as mosquitoes are attracted to lights.
- Place incandescent bulbs around the perimeter of the stable to attract mosquitoes away from the horses. Black lights don't attract mosquitoes well.
- Remove all birds, including chickens, which are in or close to the stable.
- Look around the property periodically for dead birds, such as crows. Use rubber gloves or an implement such as a shovel to dispose of dead birds.
• Eliminate areas of standing water on your property. Shallow standing water, scrap tires, manure storage pits and drainage areas with stagnant water are ideal mosquito-breeding places.

• Topical preparations containing mosquito repellents are available for horses. Read the product label before use, and follow all instructions.

• Use fans on the horses while in the stable to help deter mosquitoes.

• Fog stable premises with a pesticide in the evening to reduce mosquitoes. Read directions carefully before using. For help in assessing mosquito exposure risks on your property and for suggested control practices, please contact your county Extension office, county EPA office, local department of health, local veterinarian or a mosquito and pest control company.

Q. HOW CAN I REDUCE THE NUMBER OF MOSQUITOES AROUND MY HOME AND NEIGHBORHOOD?
A. You can reduce the number of mosquitoes around your home and neighborhood by reducing the amount of standing water available for mosquito-breeding. Here are some simple steps you can take:

• Dispose of tin cans, plastic containers, ceramic pots or similar water-holding containers on your property.

• Pay special attention to discarded tires. They are prime mosquito-breeding areas.

• Clean clogged roof gutters every year, particularly if the leaves from surrounding trees have a tendency to plug up the drains. Millions of mosquitoes can breed in roof gutters each season.

• Turn over plastic wading pools when not in use. A wading pool becomes a place for mosquitoes to breed.

• Turn over wheelbarrows, and don't let water stagnate in birdbaths. Both provide breeding habitats for domestic mosquitoes.

• Aerate ornamental pools, or stock them with fish. Water gardens can become major mosquito producers if they are allowed to stagnate. Clean and chlorinate swimming pools when not in use. A swimming pool left untended for a month can produce enough mosquitoes to infest an entire neighborhood. Mosquitoes may even breed in the water that collects on pool covers.

• Use landscaping to eliminate standing water that collects on your property. Mosquitoes can breed in any puddle that lasts for more than four days.

Q. CAN A HORSE WITH WNV INFECT HORSES IN NEIGHBORING STALLS?
A. No, there is no documented evidence that WNV is transmitted from horse to horse. However, if at all possible, horses with suspected WNV should be isolated from mosquitoes and tested for the virus.
Q. WHAT IS THE INCUBATION PERIOD?
A. The incubation period of a WNV infection is usually five to 15 days.

Q. DO BIRDS INFECTED WITH THE VIRUS DIE OR BECOME ILL?
A. Yes, large numbers of North American crows and other birds have died because of WNV infection.

Q. WHAT ABOUT TICKS?
Some ticks in Europe and Asia have been found to be infected with the virus. Therefore, infected ticks could prove to be carriers and transmitters of the virus in the future. The U.S. Centers for Disease Control and Prevention also tested ticks in the 1999 outbreak areas, but none were infected.

Q. WHERE CAN I GET MORE INFORMATION ABOUT WNV?
A. For more information, call the U.S. Department of Agriculture at 614-469-5602, or the Ohio Department of Agriculture at 614-728-6220.

THE STATUS OF WNV IN OHIO

WNV has been confirmed in Ohio every year since 2001. Infected mosquitoes, birds, horses and humans have been found in all Ohio counties. Therefore, the virus can be present throughout the state.

RESOURCES
For the current status of WNV in Ohio and for more information, you can visit the following websites or contact your local health department.

- The Ohio State University: extension.vet.osu.edu/epidemiology-and-public-health-resources/west-nile-virus-resources
- Ohio Department of Health: www.odh.ohio.gov/wnv

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