

Livestock Ledger

by

Chester D. Hughes

Extension Livestock Specialist



WHAT HORSE OWNERS SHOULD KNOW ABOUT WEST NILE VIRUS

On Sept. 26, the Pennsylvania Department of Health reported that two crows collected in Pennsylvania were confirmed positive for West Nile Virus (WNV) at the National Veterinary Services Laboratory (NVSL). These are the first confirmed positive cases of WNV in Pennsylvania.

One crow was collected in the vicinity of Levittown (Bucks County) on Sept. 8 and the other was collected in the vicinity of Wayne (Chester County) on Sept. 13.

Surveillance, especially in the eastern and northern counties of the commonwealth is ongoing.

What is West Nile encephalitis?

West Nile encephalitis is a brain infection caused by West Nile Virus previously only found in Africa, Eastern Europe, and West Asia. Encephalitis is an inflammation of the brain and can be caused by head injury, bacterial infections, or most commonly, viral infections.

How could a person get West Nile encephalitis?

West Nile encephalitis cases occur primarily in the late summer or early fall. People can get infected from the bite of certain kinds of mosquitoes infected with the virus. Mosquitoes get it when they bite, or take a blood meal, from birds infected with West Nile Virus. Those mosquitoes then transmit the virus to people and other animals when biting to take blood.

People over 50 years of age have the highest risk of developing severe illness because as we age, our bodies have a harder time fighting off disease. People with compromised immune systems are also at increased risk; however, anyone can get the virus.

How could a horse get West Nile Virus?

Horses become infected with West Nile Virus after being bitten by an infected mosquito. There is no evidence that horses can transmit the West Nile Virus to other horses, birds, or people.

What are the signs and symptoms of West Nile encephalitis in horses?

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 of hind limbs
- Paralysis of hind limbs
- Impaired vision
- Ataxia
- Head pressing
- Aimless wandering
- Convulsions
- Inability to swallow
- Circling
- Hyperexcitability
- Coma.

It is important to note that not all horses with clinical signs of encephalitis have West Nile encephalitis. Other diseases, including rabies, botulism, equine protozoal myeloencephalitis — and other mosquito-borne viral encephalitic diseases of horses

caused by Eastern, Western, and Venezuelan 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 Pennsylvania Department of Agriculture or your veterinarian. Only a blood test can confirm the diagnosis of West Nile encephalitis.

Is there treatment for West Nile encephalitis in horses?

There is no specific treatment for West Nile encephalitis in horses. Supportive veterinary care is recommended.

If my horse is vaccinated for other diseases, will it be protected from West Nile Virus?

No vaccine is available against West Nile Virus. Horses vaccinated against Eastern and Western and Venezuelan equine encephalitis are not protected against West Nile Virus.

How can I prevent mosquitoes from affecting my horses?

There are some easy steps you can take to prevent mosquitoes from affecting your horses. They include:

- House horses indoors during peak periods of mosquito activity (dusk and dawn).
- Avoid turning on lights inside the stable during the evening and overnight. Mosquitoes are attracted to incandescent bulbs that glow yellow.
- 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, that are in or close to the stable.
- Periodically look around the property for dead birds, such as crows. Any suspicious birds should be reported to the Pennsylvania Department of Health at 1-877-PA-HEALTH. Use gloves to handle dead birds and place the birds in plastic bags.
- Eliminate areas of standing water on your property. Shallow standing water, used 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 using and following all instructions.
- Fogging of stable premises can be done 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 department of health, local veterinarian, or mosquito and pest control company.

How can I reduce the number of mosquitoes around my home and neighborhood?

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. That's where most mosquitoes breed.

- Drill holes in the bottom of recycling containers left outdoors. Containers with drainage holes located on the sides collect enough water for mosquitoes to breed in.

- 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 by a family on vacation for a month can produce enough mosquitoes to result in neighborhood-wide complaints. Mosquitoes may even breed in the water that collects on pool covers; and

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

Can a horse with West Nile infect horses in neighboring stalls?

No. There is no documented evidence West Nile Virus is transmitted from horse-to-horse. However, if at all possible, horses with suspected West Nile Virus should be isolated from mosquitoes and tested for the virus.

What are the symptoms of West Nile Virus in people?

Mild infections are common and include fever, headache, and body aches, often with a skin rash and swollen lymph glands. Headache, high fever, neck stiffness, stupor, disorientation, coma, tremors, occasional convulsions, paralysis, and death mark more severe infection.

Is there treatment for people?

There is no specific treatment. In more severe cases, hospitalization and intensive supportive therapy may be needed.

Have people died from West Nile encephalitis?

In New York City last summer, seven of the 62 infected people died from the virus. All of the people who died from the virus were 75 or older. Historically, about three to 15 percent of people with WNE have died, especially seniors.

How does West Nile Virus actually cause death in humans?

Following transmission by an infected mosquito, West Nile Virus multiplies in the person's

blood and then crosses the blood-brain barrier to reach the brain. The virus interferes with normal central nervous system functions and causes inflammation of the brain.

Is there a vaccine for people? There is no vaccine for West Nile encephalitis.

What is Pennsylvania doing to prevent a West Nile Virus outbreak?

West Nile Virus has recently been found in dead crows in Pennsylvania. The crows were submitted for testing from Bucks and Chester counties. No positive human or equine cases have been found.

In response to this risk, several state agencies, local governments and health professionals have launched a plan to find and control the kind of mosquitoes known to carry the virus. We are testing animal populations that may act as a host for the virus and monitoring public health to provide early warning if any people get infected.

Has the virus been found in other states?

Yes, in 1999, laboratory-confirmed West Nile Virus positive birds were reported from the Burlington, Hunterdon, Mercer, and Warren counties in New Jersey, which are immediately adjacent to Bucks, Delaware, Northampton, and Philadelphia counties in Pennsylvania. A dead crow found on Oct. 9, 1999 in Burlington County, New Jersey, was only five miles from Philadelphia. Birds with the virus also were found in Saratoga and Albany, N.Y. and Baltimore, Md. in 1999.

New York City, New Jersey, and Connecticut successfully sprayed pesticides to kill infected mosquitoes and to stop further spread of the 1999 disease outbreak. They trapped mosquitoes and tested them for the virus from homogenized pools of the same mosquito species to determine if ongoing abatement efforts were effective.

In 2000, WNV has been found in New York, New Jersey, Connecticut, Rhode Island, Massachusetts, Maryland, Pennsylvania, and New Hampshire. Positive horses have been found in New York, New Jersey, Connecticut, Rhode Island, and Massachusetts. The European Union has implemented import restrictions on horses coming from these states.

Has the virus been found in Pennsylvania?

Yes. Several infected crows have recently been found in the southeastern portion of Pennsylvania.

Can you get West Nile encephalitis from another person?

No. West Nile encephalitis is not transmitted from person-to-

person. You cannot get the virus by touching or kissing a person who has the disease, or from contact with a health care worker who has recently treated someone with the disease.

What is the incubation period?

The incubation period of a West Nile Virus infection is usually five to 15 days.

Do birds infected with the virus die or become ill?

In the 1999 outbreak, large numbers of North American crows and other birds were observed becoming seriously ill and dying.

What about ticks?

Some ticks in Europe and Asia have been found to be infected with the virus. The U.S. Centers for Disease Control and Prevention also tested ticks in the 1999 outbreak area. Infected ticks cannot be killed by aerial insecticide spraying, therefore infected ticks could prove to be a carrier and transmitter of the virus in the future.

Where can I get more information about West Nile Virus?

Citizens may visit <http://www.westnile.state.pa.us/> for future updates or call the Department of Health's toll-free telephone number at 1-877-PA-HEALTH.

Care Of Gestating Beef Cows

Beef cow/calf producers are often guilty of feeding all cows in one group through the winter and I know how easy this makes your chores. This, however, simply cannot be the best practice because cows of different ages and condition need different care.

If you consider that reproduction is the most important thing in a cow herd, you will realize the importance of separating cows bred with their second calf from the rest of the herd. In this group you may also include old cows or thin cows.

Cows bred with their second calves, old cows, and thin cows are usually the ones that have the lowest reproduction rate. The second calf cows are still growing, and they get thin and don't cycle as early as the bulk of the cow herd. In small herds, you may even group your bred heifers with this elite group that we have already organized; although, if possible, they should be fed as a separate group.

Spring calving cows are now entering the middle third of pregnancy and nutritional needs are increasing. For the main cow herd you may use a ration consisting of 20-pounds of grass hay/head/day of about eight percent protein along with a mineral mix. This is enough to meet their nutritional needs.

As for our elite group of old cows, thin cows, bred heifers, and 2-year-olds, nutritional needs are greater and the ration could consist of 16-pounds of grass hay/head/day of about 11 percent protein along with six-pounds of shelled corn and mineral. If corn silage is available, feed 45-pounds per head per day along with two-pounds of shelled corn and 1.5-pounds of 45 percent protein supplement. The main cow herd could be fed 35-pounds of corn silage/head/day to meet their needs.

Sixty days prior to calving an adjustment needs to be made in rations for both groups to compensate for increasing energy needs. Nutritionally balanced rations are the most efficient and usually the least costly. Be careful not to overfeed, underfeed, or waste feed — you cannot afford to in today's cattle economy.

Horse Pasture Workshop Oct. 18

BEDFORD (Bedford Co.) — Penn State Cooperative Extension will be conducting a horse pasture workshop in Perry County Oct. 18 at the Lutheran Parish Hall in New Bloomfield, from 7 p.m.-9:30 p.m.

The purpose of the workshop is to teach horse owners how to improve the quality of pastures. Topics covered at the workshop will include managing soil fertility, plant species selection, pasture renovation and weed management, poisonous plants, watering and fencing for pastures, and grazing management.

Speakers at the workshop include Melanie Barkley, a county extension agent and grazing specialist from Bedford County, Duane Pysher, grasslands management specialist, Natural Re-

source Conservation Service (NRCS), and Greg Strait, Fulton County agent.

Dave Swartz, Perry County extension agent, said, "The workshop is a great way for horse owners to learn how to increase the amount of grass produced in their pastures. Horse owners can then develop a diet for their horses which includes grass. We are privileged to have a group of very knowledgeable speakers for this workshop."

For more information, contact the Penn State Cooperative Extension Office in Perry County at (717) 582-5150. Cost for the workshop is \$10. The fee includes materials and refreshments.